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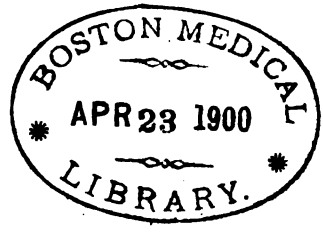

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FUSS, FEATHERS AND FOOLISHNESS.

BY T. J. HAPPEL, M.D., TRENTON, TENN.

Member and Vice-president American Medical Association; Member Medical Society State of Tennessee; Secretary Board of Examiners, State of Tennessee, etc., etc.

This article might have been entitled "A Country Physician's Experience in a Great Medical Centre," but I am sure that the specialist, the faddist and enthusiast upon surgical subjects will agree that the three "f's" form the better title for the paper.

At the outset I would disclaim any personalities or intention to ruffle in the least the feelings of any one, but offer the paper with the hope that it may serve as a balance wheel for a machine that for the last few years has been going, as I believe, at a "break-neck" speed.

The specialists in abdominal surgery, more than in any other line, have been looking more to making records than to the pathological condition of the cases brought before them; and too many have been subjected to the cold argument of a sharp knife than can be justified by any course of ratiocination.

Dr. A. presents a record of 100 cases in a certain line of work without a single death; Dr. B. then must endeavor to present one of 150 cases, and Dr. C. one of 300 cases, and Dr. D. then surpasses all with a report of 500 cases, none of

which died on the table or in his private hospital, but were lost sight of as soon as the doors of his sanitarium were closed on them. No report of pathological conditions proving the need of such operations are represented in any of these monographs, the fact that Dr. A., B., C., or D. had operated on the cases being deemed sufficient evidence that the operation was demanded.

The pell-mell rush into the field of specialism by half of the college students of the day accounts to me in a satisfactory way for much of the present state of affairs. Many who desire to enter upon the field of surgery wish to be examined upon the special department in which they propose to work, forgetting and ignoring the fact that a knowledge of general medicine is necessary to and must precede the successful prosecution of specialties. No superstructure can be erected without a good foundation, if we expect it to stand, and in medicine this foundation is laid in the study of anatomy, physiology, pathology and a knowledge of the great principles that underlie the successful work of the general practitioner. In former days the specialist developed from the general practitioner. Now he is born. His father was an oculist, hence the son became one—"like father, like son." But to the subject matter of this paper.

A quarter of a century has made great changes in the facilities for teaching medicine. Marble palaces have risen where the common brown-stone front of the seventies invited the student of medicine to linger for a year, or perhaps two at most, to get a diploma, either with or without medical knowledge.

Whether or not more knowledge is imparted these days in the palaces of the rich, we can at least affirm that better opportunities are afforded students to learn by observation from a longer stay in the self-same universities. The teachers and teaching facilities are no better than they were, except in view of the increase in general medical knowledge. He can come in contact with more "fads and faddists" than were ever thought of in those days. Specialism has pre-empted every organ and portion of the human body except the umbilicus, and soon a prophet will arise claiming that as his domain and will attempt to prove that many of the diseases of the body are due to some abnormality of that nodule, caused by the ignorance of the general practitioner in either ligating the umbilical cord at all, or in improperly tying it, or in the position in which it was placed after being severed.

But let us enter upon what was seen in a stay of a week or two in a great city. The secular papers were well filled with programmes for the work that had been arranged in the hospitals, both great and small, in the city of Philadelphia for the week preceding and during the meeting of the American Medical Association. Some of these papers contained wood cuts of the great professors and specialists, published, of course, without their consent. The names of the operators in the different hospitals and the work to be done by them each day appeared in these same newspapers, sold at from one to two cents. These programmes were printed, of course, for the information of the medical readers of these papers, and with no view of advertising any of the professors.

On the first day a magnificent infirmary, or rather hospital, under the charge of one of the religious organizations of Philadelphia, was visited as per programme. The professor (the operator) being late, detained by another operation, we had time to note the splendid arrangement of the building for the purposes for which it was designed and erected. The minutest detail of asepticism had been attended to. The operating room and tables were marvels of mechanical and surgical skill and ingenuity. Nothing was lacking. The bichloride solution, the permanganate of potash wash, the oxalic acid, and, lastly, the water were abundant. Lysol solutions were in easy reach. The female asistants, in their white overgowns, with their ligatures and instruments on gauze and in aluminum vessels, were in evidence. The professor finally came. All were kindly greeted. The patient proved to be a young female, upon whom the professor had previously made an abdominal section for a supposed ovarian disease. She had been brought back by the family physician, a general practitioner, with the assurance that she had not been benefitted by the operation and that there still remained some obscure trouble that he could not diagnose, and if he could diagnose, that he could not treat, being only a general practitioner. The case gave the professor no trouble whatever. A few inquiries were made, a moment or two of consultation was carried on with the family physician, and the announcement was made to the assembled "green-horns" that the case was one of only a pus accumulation in Douglas' cul-de-sac; that a bloodless operation would be done by means of the actual cautery; that the pus would be evacuated and the patient be well in a few days. Under ether, in a good light, the professor proceeded to operate. The vaginal canal being well

dilated, the pointing sac was shown, and then the cautery iron, having been rendered aseptic, was passed at a white heat through the septum and the sac was thoroughly opened. The operation was bloodless and pusless, but not devoid of returns. The professor and several of the assistants barely escaped a thorough drenching with liquid feces. The pus-filled sac proved to be the rectum, drawn downward and forward as the vagina was stretched, filled with liquid feces, the odor of which could not be mistaken. The thought at once arose in the minds of some that this error could have been avoided had the rectum been examined before the operation. Nothing amazed or abashed, the professor proceeded to wash out the gut with antiseptics, and when thoroughly cleansed, he closed the wound with cat-gut, assuring the onlookers, in answer to a question as to prognosis, that the wound made with the cautery iron would close by first intention, thereby imparting to us the information, hitherto unknown to some of us at least, that under antiseptic methods and in the hands of specialists burns would heal under direct adhesions without the interposition of granulation. But the end was not yet. Promptly the professor proceeded to re-examine over the site of the former incision, determining that he had to deal with pus anterior to the cul-de-sac, possibly arising from the appendix, the root of all evil. The knife was quickly used and the abdomen opened. The professor's fingers explored the cavity only to report the appendix sound and no pus sac, but that there was a mass of inflammatory exudate, the result of his former abdominal section—in which diagnosis he was doubtless correct, as he had not been able to find any other pathological condition after entering the abdominal cavity by both routes. The patient was soon transferred from the operating room through corridors at a much lower temperature to her room and entrusted to the ministrations of a trained nurse. What the result of the two operations was the spectators never learned. We were rather anxious to know of the success or failure to unite by first intention of the cautery wound to the gut, whence the pus did not escape.

The same operator then proceeded to remove a small cancerous growth from the labia and vulval inlet, dissecting out the urethra in his search after the small glands. When the diseased structures were removed he restored nicely the parts, but assured us that the growth would return The question naturally arose, "*cui bono?*" The operation could do no good. The patient was not at that time suffering, but then

the operator acquired more skill in such work by frequently using the knife—and the patient was a pauper. "Quid Interest?"

At another magnificently equipped hospital, with the same, if not better, surroundings for operating—plate-glass tables being used so as to be more surely aseptic, and the professor with his head carefully encircled with a clean linen cloth lest some defiled hair might fall upon the surface to be operated upon)—exhibited to our wondering gaze a patient in whose hand a sliver of wood was encysted. Whether or not it had been introduced into the palm several months ago antiseptically for this occasion the specialist did not report. The hand was scrubbed and scoured, washed in strong bichloride solutions, and finally, after being treated with chloride of ethyl so as to make the operation painless, an incision was made with great care and the piece of wood triumphantly held up to the admiring gaze of the general practitioner. The cyst was carefully curetted and then douched with a creolin solution, the edges approximated and gauze applied, with absorbent cotten still external to that, then a sterilized roller bandage over all, and the patient was directed to return every third day to have the wound redressed, as at his own house it would be impossible to exercise all the antiseptic precautions that could be thrown around it in a well regulated modern hospital or private sanitarium. The thought could not be well repressed in the minds of the general practitioners present and overlooking the operation, that there had been much fuss, feathers and foolishness in such a minor operation; that any one of them would have washed the hand with hot water and then with a pocket case bistoury have cut down upon and removed the splinter. He would then have destroyed the cyst, applied a piece of absorbent cotton and a bandage, telling the patient to go to work, and would not have expected to hear further from him.

On another day and at another place we were shown the beauties of the Roentgen rays in enabling us to diagnose diseased conditions or malformations or relations of the bony parts. The ease with which the diagnosis of "Morton's toe" could be made was plainly demonstrated. The perfect skiagraphs taken before and after the operation (at a cost to the patient of about ten dollars or more) showed the necessity for and perfection of the operation.

It was proven to the professor's satisfaction that no perfectly correct diagnosis could be made of this peculiar patho-

logical condition without the aid of the Roentgen ray machine in the hands of a skilled specialist in spite of the fact that the general practitioner has both hands and eyes and can obtain a clinical history from any sensible patient that will exclude the possibility of any other disease. The skiagraphs were beautiful and perfect, proving the correctness of the diagnosis, but reducing the diagnostic powers of the surgeon to a minumum from non use.

Along this same line of thought, we were told that Professor ——, a specialist in renal surgery, would do an operation for renal calculus at one of the newer hospitals of the city—one erected especially for this particular professor's benefit. After a long walk we were ushered into the operating room and were shown by the professor the patient on whom he proposed to do a nephrotomy for renal calculus, but he regretted to inform us that the skiagraph, which was to be his guide in and reason for doing the operation, had not been completed by his specialist owing to the fact that he (the Roentgen ray man) was drunk and that the first skiagraph was not sufficiently distinct. We came to the conclusion from the history obtained from the patient and from his perfect physical condition that the trouble was as likely to be lumbago as to be a nephritic calculus; hence we thought more light was needed before any operation was performed. We trust that the skiagraph specialist sobered up in time for the renal surgeon to decide during the meeting of the Association whether or not he should operate.

In another hospital we were shown by a noted specialist in brain surgery the wonderful results of investigations and operations in his particular field of work. A pauper epileptic was placed upon the operating-table. A trephine was applied in one temperal region, a button of bone was removed, the meninges were carefully detached where adherent, and with a rongeur a section of bone about a half inch in width was rapidly cut out directly across the cranium to the opposite region. This canal was shown to wondering eyes, and it was explained that this removal of bone would allow the brain to expand (give it more room), and that whilst his epileptic attacks, which were daily, would not be cured; they would not be so so frequent for a while—not oftener probably than once a week.

The operator did not stop here. He explained that the thickened meninges might be a factor in the compression of the brain and that in addition to detaching them, thus break-

ing up any abnormal adhesions, he would go one step further and divide also, being careful to sever none of the arteries. Whilst thus impressing this fact, he was deftly using his bistoury, when suddenly a large stream of venous blood poured forth from the longitudinal sinus, which he had opened. Nothing dismayed, the professor packed yards of gauze, which had been carefully sterilized, into the long canal, compressing the opening made in the sinus and then rapidly brought the edges of the scalp together, the blood in the meanwhile escaping abundantly. The scalp incision having been closed, the patient was wrapped as to his head in absorbent cotton and bandages and transferred to his ward, as is usual in such cases.

We were then shown two other cases; one in the tertiary stage of syphilis, who was a pauper, who had been operated on because he could give no account of himself and upon whom medicine would have no effect. This man had so far improved as to be able to tell his name and where he lived, but bade fair to continue to be an inmate of the hospital. This operation we were assured was justifiable in such cases. The other case presented was one of cretinism in a child of four years. Born no doubt of syphilitic parentage he suffered from heredity—had no future before him, thus making him a fit subject for experimentation. He could not talk before the operation was performed, but was able when presented to the gathering of general practitioners to say "good boy." We were, of course, unable to determine whether he knew the meaning of the words or not. The question naturally arose whether an operation of this magnitude could be justified in any one of the three cases; yet the professor was making a record in such work and to do so must operate. The death of one pauper more or less in a great city did not count.

In the section of abdominal surgery most of our time was spent. One professor, who writes learnedly on the ease with which the uterus and tubes can be removed, was on the programme for a "complete extirpation of the uterus with its appendages." The professor, surrounded by a number of admirers and assistants, was promptly on hand and the operating amphitheatre was filled with a "basket full" of instruments, in addition to a full quota of female helpers. We soon found out that the operator was in no condition to do so important an operation. With all the usual precautions the operation was begun. As soon as the cavity was opened and examination made the professor found that he needed a stimulant to

steady his nerves. Haemostats were in demand. At times it seemed to us that the whole abdomen was filled with these instruments. After watching the operator for an hour and finding that the end was apparently no nearer, and not wishing to be present at the death of the patient on the operating table, we, one by one, silently moved off. So quietly was this done that the seats were nearly all vacated before any one connected with the operation was aware of the absence of visitors.

In another portion of the city, on a quiet unpretentious street, opposite a cool pleasant park, a plain brown-stone front building, with two german silver door plates to mark it, greets the eye. Visitors are ushered into an office having an uncarpeted floor, waxed and clean. The walls are decorated with a few steel engravings of some noted surgeons of the preceding generation. The surgeon who presides over this sanitarium receives no state aid, but maintains at his own expense a charity ward of a large number of beds. In other parts of the building are rooms for his pay patients, differing from the others only in finish. The greatest simplicity characterizes the whole building. There are no marble floors or walls to protect against microbes; no imported patented operating tables; no "latest edition" of sterilizers; no copper tanks holding a gallon, more or less, of boiling water; no antiseptic solution for washing the patient or the operator. No sign is placarded over the doors requesting visitors to "remove their coats and other outer garments." There is no specially prepared operating room—any room on any floor, when not used for any other purpose, that affords a sufficiency of light is *per se* an operating room. The whole house is a marvel of cleanliness, so that the room nearest to the patient to be operated on, other things being equal, is used for operating purposes. The operating table consists of a clean, smoothly planed ash or some other kind of hard wood board of proper length and width, covered with a scrupulously clean sheet drawn two or three times around it, and then placed on two "wooden horses" of a suitable height, corresponding in width with that of the board. The patient is brought into the operating room under the influence of ether, clad in clean garments, and the operation is ready to be begun. A small handful of instruments, consisting of one short bistoury, six small haemostats, two long ones, six needles threaded with silkworm gut or silk, a few strong silk ligatures, one or two being threaded into proper carriers in case of a oophorectomy, a tre-

car and canula where an ovarian cyst has been diagnosed, a funnel with an inch or more out-flow with about two feet of large rubber tubing attached, and by its side a pitcher of hot water for douching the abdominal cavity when needed, one or two copper kettles of hot water holding about one gallon each, and a common galvanized iron tub under the improvised operating table, complete the outfit of this wonderful operator.

The records of his work show not one death in seven months, then one in the eighth month, which was the only one in several hundred abdominal sections. Cleanliness is the lesson impressed by this operation. Surgical shock is almost unknown in his work. His patients are removed from the table with almost no change in the pulse rate and tone. Nausea and vomiting rarely follow an operation. His patients are never placed on a patent "carrying machine" for conveyance from the operating room to their beds. An interne carefully takes the patient up in his arms, her body almost in a horizontal position, the head being a little low, her clothes well arranged and dry, and carries her a short distance and deposits her in her already prepared bed. There she is taken in hand by nurses who are carefully supervised. The dexterity with which the knife is used, the small amount of blood lost and the rapidity with which an operation is completed, and yet the painstaking care in regard to every minute detail of an operation, are characteristics of this operator. If an abdominal cavity is to be douched after an operation for extra uterine pregnancy, his funnel and pitcher are brought into use. The patient being turned on her side the water is poured in in sufficient quantity to wash out all clots quickly and then by a little further turning the water is all drained out and the abdominal cavity is ready for closure. Here we witnessed a dozen or more ovariotomies, one operation for extra uterine pregnancy with a ruptured tube, one for the removal of an ovarian cyst (the contents of which would have weighed sixty pounds or more), one or two colotomies and various other operations.

In many of the cases at all the places visited where the ovaries were removed, no specially morbid conditions of the organs could be detected. The patients suffered from ovarian neuralgias belonged to the laboring class and could not afford to lose time from any such useless appendage as an ovary more or less, hence wanted the operation performed for their removal. There seemed to be in all of the hospitals, sanita-

riums, etc., in the city an entire disregard of the question as to whether palliative measures would not have afforded sufficient relief in cases of ovarian diseases. The question to be settled in the case of a pay-patient seemed to be: "Does she desire the operation to be done?" not "Can it be avoided?" and in the case of a pauper patient, "Can an operation be secured without endangering too much the life of the woman?" Both questions having been answered in the affirmative, both patients soon lost their ovaries.

It is estimated that there are ten thousand women in Philadelphia alone who have been "spayed." Hence, that number have been placed beyond the pale of the scriptural injunction "to increase, multiply and replenish the earth." I have not time to elaborate this point as I would like. Suffice it to say that this making of records is causing thousands of useless oophorectomies to be performed.

I desire to add that the work done by the last mentioned operator appeared to me to be more conservative than that done anywhere else in ihe city, and the record made by him in his special line of work is without an equal in the world. In his establishment can be found neither fuss, feathers nor foolishness.

The operation for appendicitis still has its headquareers in Philadelphia. Any case of colic or "belly-ache" occurring in a pauper if picked up in the streets is at once transferred to the German Hospital, and as soon as the patient can be boiled and cleaned with bichloride he is placed upon the operating table and the useless appendage removed. If he recovers all right, a record is being made; if he dies there is one pauper less in the city and the operation is not counted. The favorable record must not be broken by reporting this one fatal case. The general practitioner is never spared when these cases are operated on. He should have known better than to continue using the various preparations of pepsin under the presumption that the case was one of intestinal indigestion. However, as he was only a general practitioner nothing more could have been expected of him. The patient should have long ago been sent to the specialist, who alone is competent to decide such cases.

It was my good fortune to see three operations done in one hour at the German Hospital. We were told in each case that pus had formed and that the appendix had been perforated, thanks to the want of diagnostic skill on the part of the family physician.

The first patient placed on the table possibly proved the correctness of the diagnosis. The operation was rapidly and neatly done and at the end elicited the applause of the onlookers. The second patient presented about the same clinical history as the first and we were told to expect the same pathological condition. When the appendix was reached, lo and behold! it was normal. Nothing abashed, the operator proceeded to remove it, remarking that it had been bound down by some old inflammatory adhesions. The third patient placed on the table was a young physician who a few days before had applied to the professor for a prescription for an uneasy condition about the abdomen. He had been directed to report at the German Hospital. He refused, saying that he would not have an operation for appendicitis performed on him. Two days later the young man, after some imprudent eating, suffered severely from some colicy pains, and reported through his father to the professor. He was told that the appendix had been perforated and that his life depended on an operation immediately. Thus confronted with a question of life or death he decided to submit to the knife. Before beginning the operation the professor took occasion to comment upon the ignorance of the general practitioner who had risked this valuable life whilst dosing him with Fairchild's pepsin, *et id omne genus.* When his auditors had been duly impressed with the fact that the knife alone availed to save life, the cavity was opened and a normal appendix was revealed. This appendix, normal in every respect except a congenital degeneration at its tip into a fibrous cord, was brought out and removed, lest in our opinion it should deceive some other brilliant operator and damage his record.

This exhausted the material for the day's work, and the spectators scattered with the unexpressed thought that the general practitioner was not as great a fool as he had been pictured.

Since finishing this paper a friend reports to me the two following cases witnessed by him, one in New York, the other in a Southern city:

A healthy young woman was brought into the amphitheatre of one of the New York hospitals under the influence of an anæsthetic. So far as appearances went the patient was a perfect specimen of healthy womanhood. The professor remarked that he had to deal with an obscure ovarian trouble, and at once proceeded with his operation. Almost before the

spectators realized that the operation had been begun, an ovary had been removed. The professor examined it critically, remarking that he had to deal with a "granular degeneration of the ovary." The other ovary was not touched. The wound was closed and the patient removed, to be succeeded in a few seconds by another female. In the meantime the ovary which had been removed was carefully kept in a vessel of sterilized warm water at a temperature of 99°. The second patient presented was then shown to the class. The professor stated that he had here a case of congenital absence of the ovaries in a girl under twenty years and that he was about to do an experimental operation that had never before been attempted. He then made an incision over the uterus and soon exposed it, proceeding to incise its peritoneal covering on one side, and in this incision he implanted the ovary removed from the first patient, and then closed the wound in the uterus and abdomen, remarking that he hoped from this operation to set up a development of the uterus, which up to this time had never taken place. If now his statement in regard to the ovary removed from the first patient was true, then he was grafting into a sound organ diseased tissue, and if not true then he had willfully misrepresented and perverted facts. But then the operator was experimenting and one life more or less lost in the interest of science mattered not. He can choose either horn of the dilemma that he prefers.

Case No. 2 was a colored female who had been brought into the hospital of the city suffering from a large uterine fibroid. She had been received a few days before when another gynecologist was on the service, but was "run out" till the second specialist came on duty. This specialist No. 2 invited No. 1 to be present and aid him in the operation. Dr. A. consented, knowing nothing of the case. Dr. B. proceeded to do the operation, having as his motto, "Get there in the shortest possible time," regardless of the loss of blood and the resultant shock; he wished to show Dr. A. how short a time should be consumed in such an operation. The work proceeded; the blood flowed freely. Dr. A. suggested that Dr. B. stop and check the hemorrhage. "No," replied Dr. B.; "I am going to get this tumor out." The cutting and tearing proceeded and again Dr. A., noting the failing pulse, suggested the checking of the flow of blood which was now rapidly exsanguinating the patient; but Dr. B. returned the same answer as at first given. He got the tumor out, and in

less than two hours there was a death in that hospital, and the corpse was that of the woman who three hours before was in no worse condition than are hundreds of her sisters in black who go to their graves after long lives of hard work with the uterus studded with fibroids giving fully as much trouble as had this woman's, whose body was placed either on a dissecting table or buried in the potter's field the next day.

Neither of these two cases brought credit to the operators, nor could either of them have been justified in any assemblage of honest men.

WOMEN DOCTORS OF ANTIQUITY.—The first qualified woman physician in Europe, so far as is known, was a young Athenian woman, named Agnodice. In the year 300 B. C. she disguised herself as a man and began to attend the medical schools at Athens, which it was against the law for a woman to do. She afterwards practised among the women of Athens with extraordinary success. But her secret becoming known, she was prosecuted for studying and practicing medicine illegally. The Athenian women, however, raised so furious an agitation in consequence that the case was dropped and the law repealed. Coming to later times, we find several women who obtained the degree of doctor of medicine and practised in Europe before 1492, especially in the Moorish University of Spain. Trotula, of Rugiero, in the eleventh century had a European reputation, and practised as a doctor in Salerno. At the beginning of the fourteenth century Dorothea Bocchi not only received the degree of doctor but was professor of medicine in the famous University of Bologna. Since then two other women have been professors of medical subjects in the same university—Anna Mangolini (anatomy) and Dr. Maria delle Donne (obstetric medicine), the latter being appointed in 1799. In the year 1311 an edict was issued in France forbidding surgeons and female surgeons from practising until they had passed a satisfactory examination before the proper authorities. These female surgeons are again referred to in an edict in 1352.—Philadelphia Medical Journal, April 23.

APPENDICITIS.*

BY M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

Mr. President and Members of the Association:

It is my desire to present for your consideration a clinical picture of the disease known as appendicitis. I shall speak of the ætiology only so far as will enable us to better understand the symptoms, and shall not impose upon your time with the details of the surgical procedures necessary in many cases of this affection.

If to-day by our consideration of the symptoms of this dangerous condition we learn how to better recognize it, we shall not have wasted our time.

The causes of appendicitis are both predisposing and exciting. Of the predisposing causes of appendicitis, the first that merits consideration is its anatomical structure. The appendix varies very much in length—from a little stump less than an inch long to an organ nine or ten inches in length, but its diameter is fairly constant, being about the size of a quill or of a small lead pencil. It always arises at the end of the longitudinal band, which divides the colon and caecum into an anterior and posterior sacculation. The caecum in its development, however, varies somewhat; at times it remains conical, as it is in foetal life; and again, one of the other of the pouches that are found on either side of the longitudinal band may be deficient in development, hence, the appendix, which is constant in its origin, will be displaced because of this failure of development; then again the caecum may fail to descend, hence, it, with the appendix, may lie in the center of the abdomen, or even on the left side.

These anatomical peculiarities, if remembered, will help us to better diagnose those cases in which the symptoms are in an unusual situation. It will be necessary here to study some of the peculiarities found in the anatomical structure of the appendix itself. It may be covered with peritoneum and hang loose in the peritoneal cavity; or, as is more usual, it may have a meso-appendix of greater or less length. If the

*Read before the Middle Tennessee Medical Association, May 20, '98.

meso-appendix be short (and it generally is), there will be more or less twisting and kinking of the appendix; and this twisting, interfering as it must with the drainage of the organ, is a strong predisposing factor in the production of inflammation in it.

There are several fossae or depressions formed by reflections of the peritoneum into which the caecum may fall or be forced and its drainage thus be impaired and inflammation invited.

The appendix has besides the peritoneal covering, already described, a circular and a longitudinal muscular layer, and also a lining of mucous membrane. This mucous lining has a free supply of lymph vessels and is studded with solitary follicles and glands of Leiberkuhn, open mouthed and ready to absorb infective material.

Once they have been injured by typhoid infection or by any other form of disease they become more prone to be again diseased. The mucous membrane being plentiful it is thrown into folds about the opening of the appendix into the caecum, and thus is formed a spurious valve that interferes with drainage.

Another predisposing cause of inflammatory changes is scanty blood supply; this does not hold to the same extent in women as in men, since they at times have besides the small appendicular artery a further supply from the ovarian artery through the appendiculo-ovarian ligament.

Exposure to inclemency of weather, by causing congestion of the mucous membrane, is a predisposing cause.

The disease is not often found in children, since the Lieberkuhn glands are not well developed and because they are not subject to injudicious feeding. The disease occasionally occurs in extreme youth, and then runs a rapid course and is very fatal; old age is no barrier to its onslaughts.

Constipation is, to my mind, a predisposing cause, though this is denied by some observers.

A prominent member of this Association, Dr. Hardison of Lewisburg, has called the attention of the profession to the fact that the appendix may have a function, and that that function may be to stand guard and warn the caecum, when, because of over distention the appendix is being opened, that it is time to contract and force the faecal mass onward. If this opinion as to the function of the appendix be correct, there can be no doubt that constipation plays some part in the production of appendicitis. Permit me to quote from

Dr. Hardison: "A potent factor that neutralizes the function of the appendix is slow bowels, or constipation, exercising its influence by the damming back process, closing up the elevator, or the colon, increasing the demands on the appendix beyond its capacity, until appendicitis is the result.

Foreign bodies in the appendix may act as predisposing causes to inflammation of the organ.

There is but one exciting cause for this disease, and that is invasion of the structures of the appendix by micro-organisms. All of the predisposing causes enumerated lower the vitality of the tissues so that they cannot resist the attacks of these germs. Once having gained an entrance these germs produce the different pathological changes found in appendicitis. The severity of the attack will depend upon the nature and virulence of the micro-organism and the predisposing cause or causes.

The colon bacillus is less violent than the streptococcus, and an appendix that is so situated that it can easily empty itself is less liable to a severe attack of inflammation than one that is bent or twisted upon itself, or that has its lumen blocked by a foreign body or a fecal concretion.

In the clinical picture of the disease we recognize two more or less well marked types of appendicitis, viz., the acute and the chronic. In the acute form the disease progresses beyond the mucous membrane, the micro-organisms attack the deeper structures, and gangrene or ulceration results; while in the chronic type the inflammation is limited, does not tend to invade all of the appendiceal coats, and is less violent in its various characteristics.

The symptoms in both types at first are the same, varying only in intensity, while later in the disease they separate widely. The symptoms by which this disease is to be recognized are pain, tenderness and rigidity of the muscles over the site of the inflamed organ.

Pain is the first symptom; it usually comes on more or less suddenly, is of a griping, colicky character referred to the region of the umbilicus or stomach, sometimes to the right inguinal region and occasionally to the hepatic region. At first the pain may be nothing more than irregular contractions of the circular muscle fibers of the appendix—a colic of the appendix—which will completely cease if the source of irritation escapes, but failing this, the pain continues, grows less spasmodic in character and more localized. At first the pain in appendicitis may be in any part of the abdomen.

Once inflammation has set in pressure over the diseased structure, or movements of the body by which the psoas or abdominal muscles are brought into play, increase the pain. The pain, when localized, will be in the region of the diseased appendix; hence a knowledge of the anatomic peculiarities that it is subject to and of which I have already spoken will enable us to understand why in one case the pain is located on the left side, in another it is referred to the liver or right kidney, and in yet another to the pelvis, the testes, or the leg.

Next to pain, rigidity of the muscles is, to my mind, the most valuable symptom; it occurs in the muscles over the inflamed area, and as this is most commonly in the right side of the abdomen the muscles of that region are the ones in tonic contraction; but since we know that the appendix is not constant in that situation we are prepared to find (as we sometimes do) the muscles of the left side and those over the lower abdomen in a state of rigidity.

Tenderness is a constant symptom in all cases of appendicitis; it varies much in character because of the different positions which the appendix occupies. If it lies in front near the abdominal wall the tenderness will be easily demonstrated by palpation; but if it lie behind the caecum, then deep pressure will be necessary to elicit it. If the appendix be long so that it lies in the pelvis, rectal or vaginal touch may better demonstrate tenderness than abdominal palpation. A point midway on a line drawn between the umbilicus and the anterior spine of the ilium, McBurney's point, is the usual position in which the tenderness is most marked. That the tenderness is not constant in this situation should be borne in mind.

Besides the three prominent and almost Pathogomonnic signs enumerated, there are other coincident symptoms, occasianally presenting themselves that are worthy of consideration. Vomiting sometimes accompanies the first pains; it subsides early and does not recur in favorable cases, but it recurs and persists in fatal ones, the vomit towards the end becoming stercoracious.

Constipation is a predisposing cause in many cases, so we must expect it to be present; but at times we encounter diarrhoea, especially in the most unfavorable cases. This diarrhoea, however, does not precede the attack as a rule.

Temperature is usually elevated early in the disease from 100° to 103°, but it bears little or no relationship to the se-

verity of the disease. Gangrene, perforation, general peritonitis and death may occur with only a slight elevation of temperatnre.

The pulse is a much safer guide to the nature of the attack; a rapid and weak pulse is indicative of a grave attack, and this is especially the case when the temperature is low.

A mass that can be distinctly outlined in the region where the pain and tenderness exists signifies that peritoneal adhesions have formed, uniting together the structures in that region. This is rather a sign of safety; it means that nature has thrown up a bulwark against infection of the general peritoneal cavity.

It is stated by some observers that the inflamed appendix and even the normal appendix can be palpated. I unhesitatingly say I have not been able to accomplish this, nor have I seen it done to my satisfaction by any other abdominal surgeon, though I have opened the abdomen and examined the normal appendix when it had been so palpated and declared diseased. If you will observe the size of the inflamed but ruptured appendix you will recognize the folly of expecting by palpation over a rigid abdomen to feel any such structure.

In cases in which the disease is severe the abdomen may become much distended by gas. If the peritoneal cavity generally becomes affected intestinal paralysis will supervene and the distention may be enormous.

In chronic appendicitis besides the symptoms—pain, rigidity and tenderness—described in speaking of the acute disease we may get a history more or less distinct of previous attacks of colic followed by tenderness lasting from several days to a week or more. The temperature in this class of cases runs low, say 99½° to 101°, and the pulse keeps pace with it, ranging from 85 to 110. If several attacks have occurred palpation is liable to reveal tumefaction, though I have recently operated upon three cases in each of which the appendix was badly damaged, but in none of which was there any inflammatory mass existing.

When an exacerbation of the symptoms occur in a chronic case and persists and upon palpation a distinct tender painful mass is easily made out, it will probably contain pus.

The diagnosis of appendicitis at times offers difficulties, but by studying carefully the case a mistake will seldom be made. It will be necessary to differentiate between this disease and inflammatory affections of the fallopian tubes and ovaries.

Extra uterine pregnancy, typhoid fever, nephritic colic,

peri-nephritic abscess, biliary colic, hepatic abscess, intestinal obstruction and intestinal perforation are a number of the abdominal affections that have been mistaken for appendicitis.

Salpingitis and ovarian abscess can readily be distinguished by the absence of the spasmodic pain, of the marked rigidity over the usual site of the appendix, and of the tenderness in any other situation than that of the diseased structures. If a doubt remains the existence of a more or less firm, tender mass situated in close proximity to the uterus and easily made out by bimanual examination, with absence of tumefaction over the usual site of the appendix, will clear up the diagnosis.

Extra uterine pregnancy is known by the history of complete or partial cessation of the menstrual flow for one or two periods, accompanied with some of the signs of pregnancy preceding the onset of the symptoms. The pain is less severe and the rigidity less marked than when the appendix is affected. Bimanual examination will reveal a more or less rounded, boggy mass connected with the uterus.

Typhoid fever may be differentiated by inquiring closely into the early symptoms of the disease; it is slow of onset, has no well marked pain or rigidity of the muscles and but slight tenderness. Later in the progress of the trouble tenderness and rigidity may be present, but then no mass will exist as occurs in appendicitis, when it persists and presents the signs of septic poisoning.

Nephritic colic comes on suddenly; the pain is spasmodic in character, but is at first marked in the region of the kidney and radiates through the groin to the bladder, penis and testes. Rigidity of the abdominal wall and tenderness are both absent and there is, as a rule, absence of fever. Pyonephrosis and peri-nephritic abscess both lack the early history of spasmodic pain, rigidity of the muscles and tenderness. Neither are accompanied by intestinal disturbance. Then in abscess of the kidney there will be present bladder symptoms, and there may be pus or blood in the urine.

Biliary colic may be known from appendicitis by the situation of the pain when it becomes localized, by its being more severe, and by the absence of fever. The two diseases at times have many symptoms in common, but with care a differential diagnosis can be made.

Hepatic abscess does not present the early history of pain, rigidity and tenderness, and though in the later stages of the disease the two may resemble each other very much, yet the

early history, the site of tenderness, the situation of an enlargement, if one be present, will serve to mark appendicitis from hepatic abscess.

In intestinal obstruction the pain is sudden and severe, there is absolute constipation, flatus not even passing, vomiting begins early and is continuous, there is absence of tenderness and rigidity, the pain becomes localized over the seat of obstruction, there is absence of fever, and unless relieved collapse comes soon.

Perforation in some portion of the alimentary canal, especially following gastric ulcer, may be confounded with appendicitis; but the, history, with the absence of the early symptoms of sudden pain, followed by localization in one of the regions in which the appendix is found, rigidity of the muscles and tenderness will enable us to make the distinction.

The diagnosis having been made then comes the question of prognosis and treatment. Statistics here are of little value and authorities differ very much. If we state that seven per cent. of all cases treated by other than surgical means when first attacked will die and that the mortality of those having a second attack will be fourteen per cent., we will not be far from the truth. This would seem to make operation essential in every case, but when we remember that in ordinary cases the chances are three to one that there will be no recurrence, we are less sure about the necessity of operating in every case. It is true that operation by experts in those simple cases is probably without mortality; but we are not all experts, and to invade the peritoneal cavity unless we have a good knowledge of abdominal surgery and have the proper environments to insure success is, to say the least of it, holding human life at a low estimate.

Every case is a surgical one; not necessarily to be operated upon however. But as each case endangers the life of the patient it should be watched with the idea of subjecting it to surgical treatment as soon as the good judgment of the attending physician and his consultants decide that the proper time to do so has arrived.

In every case of appendicitis consultation should be asked. I believe the physician who neglects to do so is negligent of the best interests of his patients. The question naturally arises here, when shall we operate? This is one difficult to answer since no two cases are alike; one may demand imme-

diate operation, with another we may delay, while a third may not require it at all. There is no definite time limit, and I am willing to confess I can lay down no hard and fast rule upon the matter; I cannot say, when this or that symptom occurs is the time to resort to surgery. Experience is the best teacher in a matter of this kind; there are some symptoms, however, that make operation imperative. When pus is present operation should be done. In cases that show severity from the outset delay in applying surgical treatment must not be permitted. In relapsing cases without tumefaction operation is demanded, since the lumen of the tube may be closed at some point by the attack, making it impossible for the appendix to empty itself at a subsequent attack, hence, if it be not walled off by adhesions, that is, if there be no inflammatory exudate walling off the diseased organ, this subsequent attack may be a fatal one. I encountered such a condition in a young medical student in April last. Admitting then that all cases are to be looked upon as probably surgical, how shall we treat them up to the time when operation becomes necessary? The indications are: to relieve pain, remove the irritating material from the bowels, and to keep them at rest until the inflammation subsides.

The first step, then, will be to put the patient in bed; the quiet and the position will relieve the pain somewhat; it may be further relieved by the application of ice bags, or hot turpentine stupes, which ever prove most efficacious. Opium under no circumstances should be administered; it locks up the secretions, masks the symptoms, gives a false sense of security, and does nothing towards curing the disease.

The bowels should be emptied by calomel, in powder, dropped on the tongue, if there is much nausea. The calomel should be followed in say six hours by magnesium sulphate. If the stomach be not irritable castor oil will serve the purpose very well; I prefer the watery action of the saline; it will better help the appendix to discharge its contents if its lumen be not completely occluded. Many authorities condemn the use of laxatives in these cases because of the danger of breaking up adhesions and thus endangering the general peritoneal cavity. This fear I believe to be unnecessary; any adhesions, even though they be slight, will be but little disturbed by the peristaltic movements permitted to the structures involved. The diet should be light and consist of broths largely, to which may be added white of egg;

milk may be given, but not in too large quantities. Ninety per cent. of all first cases treated after this fashion will recover, at least temporarily. About ten per cent. will demand operation or die. It is the duty, then, of the medical advisers to watch closely all cases from a surgical standpoint in the hope of saving this ten per cent.

This paper, I trust, will open up a sufficient field for thought and discussion without considering the details of the operation.

ABSTRACTS.

THE MOSQUITO AS A FACTOR IN THE PRODUCTION OF MALARIA IN MAN.

The evidence in favor of contamination by suctional insects is strong, and the belief that the mosquito can thus transmit the pathogenic element of malaria is every day gaining ground. Two years ago Manson produced in the human subject attacks of typical malaria by the imbibition of water inoculated from the bodies of mosquitoes which had bit persons suffering at the time from malarial fever. Drainage of the soil causes mosquitoes to disappear. They fly near the ground, especially about pools; they are most active at night, all features that seem to associate this insect with malarial fevers. They are bred from the egg to the larvae, from the larvae to the nymphae, from which emerge the young mosquitoes, in marshy places; hence it is fair to assume they impregnate themselves with malarial germs. In the Roman malarial districts the overseers who protect themselves from the bites of insects suffer less than the laborers from malaria. In autumn after the rains the mosquito is very prevalent and so is the fever; both diminish at the same time.

We, fortunately, have in carbolic acid an excellent preventive agent against the mosquito. The use of a strong carbolic acid soap for washing purposes suffices when insects are not numerous; the stronger the odor of carbolic acid given off by the skin the better. In malarial regions, however, especially when mosquitoes are numerous, the protection must be increased in proportion. This can easily be done by dipping the hands, after the ablutions are over, into a bucketful of water containing an ounce of carbolic acid, and passing them, while wet, over the face, neck and ears—any portion of the body that may be exposed. If the points thus moistened are

not wiped the water will evaporate, leaving a thin film of carbolic acid over the skin, which thoroughly protects it until completely washed off by the perspiration. A bucketful of such a solution is sufficient for twenty. If resorted to before retiring, the protection usually lasts during the sleeping hours.

When carbolic acid is not available an emulsion of common kerosene or petroleum is an excellent substitute, the fumes of the pure article being fatal to the mosquito. A few drops of petroleum held in any open receptacle a few inches under the insect causes the latter to drop dead.

The mosquitoes, their larvæ and nymphæ infecting small pools can easily be overcome by pouring into each sheet of water a quantity ranging from a few ounces to a pint of petroleum. This gradually spreads on the surface and the local supply of insects is, at least, greatly reduced. This plan, recently tried in New Jersey, has been found very effective.

A simpler method is that suggested by the Public Health Journal, which states that the mosquito in all its phases may be killed by contact with the most minute quantity of potassium permanganate. A 1 to 1500 solution distributed in mosquito-haunted marshes or grasses will render the development of the larvæ impossible; while a handful of permanganate will oxidize a ten-acre swamp, kill its embryo insects, and keep it free from organic matter for thirty days at a cost of 25 cents. A single pinch of permanganate has killed all the germs in a thousand-gallon tank.

As prophylactics against the attacks of insects and other disease-breeding germs, the Zulus and the natives of many tropical countries anoint their bodies with fat. Hence, the probable explanation of the prevalent value of an ointment containing ½ drachm to the ounce of betanaphthol,—which also greatly reduces the irritation caused by the bites and stings of any insect. It must be said, however, that the sensation produced by a coating of grease over the face during hot weather is anything but pleasant—at least, for a white man.

TREATMENT.—For the treatment of mosquito bites the application of aqua ammoniae may counteract the infectious principle, but this is doubtful, for it does not penetrate the tissues, as did the insect's bill. At any rate, it reduces the suffering if applied with a little rag and left *in situ* a few moments.

Menthol sometimes affords considerable relief, the crystalline solid or camphoraceous substance being rubbed over the surface.

Neal highly recommends the following mixture for local applications:

℞ Pulv. ipecacuanha, ℥ss
Spir. vini rectif.,
Ætheris, of each, ℥ss.—M.

Ottinger affirms that ammonia is of little benefit, and that the best results are obtained from the application of ichthyol. In numerous bites and stings of flies, gnats, bees, wasps, etc., he found that it quickly and surely caused the phenomena of inflammation—which he attributes to its vasoconstrictor action—to subside. It is best applied pure, in pretty thick layer, though it may be used in the form of an ointment.

Morris also suggests painting the bites or stings with a saturated solution of either camphor or salol in ether; or a mixture of 30 grains each of salicylic and benzoic acids in 7 drachms of collodion, may be tried.

Brocq and Jacquet recommend the following as effective for the bites of fleas, mosquitoes, gnats, sand-flies, mites, etc.:

℞ Camphorated oil of chamomile, 100 parts.
Liquid styrax, 20 parts.
Peppermint essence, 5 parts.
M. Apply.

When many bites have caused violent local tumefaction and congestion a cold lead-water poultice forms a very soothing application. Lemon-juice is also useful.—Monthly Cyclopaedia of Practical Medicine.

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EDITORIAL.

THE PROFESSOR OF PHILOSOPHY.

The chair of physiology in the Medical Department of the University of Nashville, long ably filled by Professor Ambrose Morrison, M.D., and vacated by his retirement at the close of the last session, has been filled by the election of Dr. John Dillard Jacobs of Clinton, S. C.

Dr. Morrison's health had been failing for some years and during the past session he felt that the work of this important chair had become too much for him. He therefore tendered his resignation, which the Faculty, though reluctant to terminate the pleasant associations between Dr. Morrison and his fellow members, could not refuse to accept.

We feel that the selection of Dr. Jacobs to fill this vacancy was a wise one. It is the recognized policy of the University

to constantly maintain the teaching efficiency of its corps of instructors and to increase it wherever possible. Careful consideration of the fitness of each man for his post is one of the best means of keeping its efficiency at the highest point, and the action of the Faculty in this instance is thoroughly in accord with this policy.

The father of Dr. Jacobs is the pastor of the First Presbyterian Church of Clinton and is prominent in literary and educational circles. His tastes were transmitted to the son, who, born in 1873, entered the Presbyterian College of South Carolina in 1887, completing the course in 1892. After a year of post graduate work, and reaching the degree of A.M., he served for two years as professor of Latin, Greek and Chemistry in Thornwell Seminary. He resigned this to begin the study of medicine. His medical course was received in the University of Nashville, graduating with honors in 1898. During this course he demonstrated his ability to impart instruction, holding the position of Demonstrator of Chemistry. In the position which he now takes, he is sure to acquit himself in such a manner that the friends of the University will rejoice in the strength and vigor which he brings to it.

DEATH OF DR. AMBROSE MORRISON.

The alumni of the Medical Department of the University of Nashville, as well as the profession generally over the South, among whom he had a host of warm personal friends, will be pained to read the announcement of the sudden death of Dr. Ambrose Morrison in this city, August 3.

Dr. Morrison was born in Nashville in May, 1847, and was, therefore in his 52d year. His youth was passed in attending the public schools of the city, his education being completed at one of the higher institutions. After leaving school he was engaged as a traveling salesman by the firm of Francisco & Co., which at that time was the leading wholesale hat house in this city.

Here he remained until 1873, and might have continued permanently in the mercantile business but for a misfortune which befell him in that year. While engaged in his work he had a sunstroke, rendering it imperative that he should quit the road. In 1874 he began the study of medicine in the office of Dr. T. A. Atchison. His degree was taken in 1876 at the University of Nashville.

From the time of his graduation to the day of his death Dr. Morrison was connected with this school. In 1883 he was elected to the chair of anatomy and physiology in the Dental Department of Vanderbilt University, and was later made secretary of the Faculty—a position which he held to the day of his death.

When the Medical Department of the University of Nashville was reorganized recently Dr. Morrison was continued as Professor of Physiology, which position he resigned last April on account of failing health.

As associate editor and afterwards as senior editor of the Dental Headlight, Dr. Morrison's efforts in the field of journalism were singularly successful, and to him is due in a large measure the success which the publication has achieved. Into this work Dr. Morrison threw the same energy which characterized his other labors.

Dr. Morrison was for many years secretary of the State Medical Society, and also its treasurer in 1893. He held various other offices in the organization, the duties of which were ably and conscientiously discharged.

Among the medical profession Dr. Morrison was held in the highest esieem, and no better example could possibly be held up to the younger generation as a type of the conscientious, painstaking physician and honest, unassuming Christian citizen. Dr. Morrison, while not the most attractive, was possibly the most successful teacher this city ever afforded. His professional attainments were acquired only after a great deal of labor and that fact seemed to enable him to simplify the most complex scientific proposition within the grasp of the slowest student. The interest which he took

in each individual member of his class gave him always a very strong personal following, and explains the marked popularity of so quiet and unassuming a man.

In disposition Dr. Morrison was quiet and unpretentious, and a casual acquaintance would not suspect the depth and breadth of his scientific and literary attainments. Those who knew him best, appreciated and loved him most. His heart seemed to be absolutely free of all those disturbing passions that usually infest the human breast. He never spoke evil of anybody. If he ever had an evil thought towards those he did not fancy, even his best friends never knew it. For purity of mind and soul, rectitude and honesty in every word and deed, and a straightforward Christian life of over half a century in the same city, he showed as a conspicuous example. He was all this too under the most trying physical suffering. In addition to the sunstroke that made him a semi-invalid he was afflicted with a lameness that gave him constant discomfort in every movement. He had not spent a single day in the past twenty years without pain, yet he never complained and was always cheerful and bright and had a kind word for everybody.

Some weeks ago Dr. Morrison took a trip to New York, but while there he complained of being much depressed by the heat, and in a few days left for the New Jersey coast. The Saturday before his death he returned in apparently the best of health, and much refreshed by his jaunt along the sea. The day of his death he visited his patients as usual, returning at the lunch hour to his office in seeming good health.

He was a zealous member of the Methodist Church, with which he had been connected for more than thirty years, holding his membership in the Tulip-street Methodist Church.

Dr. Morrison leaves two children, Miss Ellen Morrison and Frank Morrison. He is also survived by his aged mother and two brothers, J. C. and Richard Morrison, of the Tennessee Dental Depot. A sister, Mrs. Ed Welburn, also survives him.

At a meeting of the physicians of the city of Nashville, the following tribute of respect was adopted:

WHEREAS, The great summons which called him from the scenes of earth came suddenly to our friend and brother, Ambrose Morrison, M.D., on the afternoon of Wednesday, Aug. 3, 1898, it is resolved by the physicians of Nashville:

1. That in his death our profession has lost an earnest, useful and eminent member.

2. That his long term of service as teacher of medicine, as well as practitioner, and the records he made in both capacities are and should be sources of gratification and pride to his family and friends.

3. That in all the essentials of true nobility the character of the deceased was without blemish. Kind-hearted, courteous, charitable and of inflexible rectitude, he was a constant type of pure Christian manhood.

4. That though for many years a constant sufferer, he never shrirked a duty nor refused, at any sacrifice of time or personal comfort, to oblige a friend. And withal, he was uniformly patient and uncomplaining. No loftier tribute can be paid himthan to simply state the fact that he was appreciated the most and esteemed the highest by those who knew him best.

5. That we extend our deepest sympathy to the family and relatives in their bereavement.

6. That a copy of these resolutions be furnished to the family and to each of the local medical journals and the daily press for publication.

A. B. COOKE,
A. M. TRAWICK,
G. C. SAVAGE,
Committee.

The faculty of the Department of Dentistry of Vanderbilt University adopted the following resolutions of respect:

WHEREAS, In the order of Divine Providence, Dr. Ambrose Morrison has been removed from our midst by the hand of death, and our hearts have been deeply moved thereby; therefore,

Resolved, That in his death we have lost one of nature's noblemen, a generous friend, an able colleague, a man of true and honest purpose, a pure mind, of sound judgment, prompt in action, faithful in trusts, an earnest Christian, an able teacher, and an ardent lover of his profession.

Resolved, That the death of our beloved colleague in the prime of his years and usefulness is a dispensation of affliction incapable of consolation otherwise than by humble faith

in the Omniscient One, who is "too wise to err and too good to be unkind."

Resolved, That our departed colleague was endeared to the members of this faculty by his devotion to his duties, generosity, kindness and geniality; that his Christian life is an assurance to us that our sudden loss is his endless gain.

Resolved, That we tender our sincere sympathy to his esteemed mother, children and family, who have been called to part with their beloved one, praying the Father in heaven that in this hour of deep affliction they may find the Savior near and "may put their trust under the shadow of his wings."

D. R. STUBBLEFIELD,
HENRY W. MORGAN,
Committee.

THE NORTH CAROLINA EXAMINING BOARD.

The Board of Medical Examiners of the State of North Carolina held their annual meeting at Charlotte, in May. Eighty-two applicants for license to practice medicine were present, representing twenty-one schools. The table below shows at a glance the results of the examination:

COLLEGE.	Applied	Passed	Rej'ct'd
University of Nashville	3	3	.....
Vanderbilt University	7	3	4
Faculty of Paris (France)	1	1	.....
University of Virginia	1	1	.....
University of New York	1	1	.....
University of Louisville	1	1	2
Louisville Medical College	6	4	1
Kentucky School of Medicine	2	1	.....
University of Pennsylvania	2	2	.....
P. and S., Boston	1	1	.....
Illinois Medical College	1	1	.....
Long Island Medical College	1	1	.....
P. and S., Baltimore	2	1	1
Baltimore Medical College	11	10	1
University of Maryland	6	6	.....
Medical College of Virginia	4	4	.....
University College of Richmond	1	.....	1
Tulane University	1	1	.....
Leonard Medical College	5	5	.....
North Carolina Medical College	2	.....	2
University of Georgia	1	.....	1
Undergraduates	22	16	6
Total	82	63	19

It is the old story. The graduates of the Medical Department of the University of Nashville are everywhere making

exceptionable records before the State Examining Boards, and our delegation to North Carolina has made its part of the record. We are informed the grades of the University of Nashville men were very high. Such successes as these help to make brighter than ever before the fame of our dear old *Alma Mater.*

EDITORIAL ITEMS.

Dr. William Osler, of Baltimore, has been selected for the distinction of the Fellowship of the Royal Society of England. He is already a Fellow of the Royal College of Physicians of London.

Dr. William Pepper, of Philadelphia, distinguished as a practitioner and teacher of medicine and as a writer on medical subjects, died of angina pectoris on July 25, at Pleasonton, California.

His father, the elder Dr. William Pepper, was likewise distinguised as a physician and medical teacher. The younger Pepper was born in 1843, graduated in medicine from the University of Pennsylvania in 1874, became a lecturer in that school in 1868, and was continuously connected with it until his death, holding successively the lectureships of morbid anatomy, clinical medicine, and professorships of clinical medicine and theory and practice of medicine.

His most important literary work was done in connection with the " System of Medicine by American Authors," edited by him, and containing many contributions by him, published in 1885-'86. He was a member and officer of numerous scientific bodies; among them the Pan American Medical Congress, which he organized. His services to the University of Pennsylvania were not confined to the Medical Department, to which alone he gave the William Pepper Laboratory of Clinical Medicine, in memory of his father, besides $50,000 as a contribution to an endowment fund.

In addition to all this he performed many distinguished services to his native city in promoting the establishment of a number of public institutions.

His loss was indeed a great one to the city of Philadelphia and the medical profession of the United States.

The reports of the Examining Boards of Tennessee and Mississippi as printed in the BULLETIN last month are such object lessons of the teaching imparted by the Medical Department of the University of Nashville that we reproduce them below:

TENNESSEE.

COLLEGES.	No. Examined.	No. Passed.	No. Rejected.	Highest per cent.	Lowest per cent.
University of Nashville	21	20	1	91	65
Vanderbilt University	12	10	2	89	50
University of Tennessee	5	4	1	95	40
Tennessee Medical College	5	5	. . . .	85	75
Meharry Medical College	2	1	1	75	71
Memphis Hospital Med. Col	8	7	1	88	71
Chattanooga Medical College	4	3	1	89	50
University of Louisville	5	5	. . . .	85	75
Louisville Medical College	1	. . . .	1	. . . .	65
Hospital Medical College	2	1	1	80	62
Kentucky School of Medicine	1	1	. . . .	75	. . . .
Jefferson Medical College	1	1	. . . .	75	. . . .
University of Pennsylvania	3	3	. . . .	96½	75
Bellevue Hospital Med. Col.	1	1	. . . .	80	. . . .
Baltimore College of P. and S.	1	1	. . . .	78	. . . .
Baltimore Medical College	2	2	. . . .	78	77
Southern Medical College	2	2	. . . .	85	78
Tulane University	1	1	. . . .	75	. . . .
University of Virginia	1	1	. . . .	90	. . . .
University of Michigan	3	3	. . . .	89	79
Missouri Medical College	1	1	. . . .	92	. . . .
Milwaukee Medical College	1	1	. . . .	59	. . . .
University of Kansas City	1	1	. . . .	85	. . . .
Non-graduates	13	6	7	88	34
Total	97	81	16		

MISSISSIPPI.

SCHOOL.	Applied.	Passed.	Rejected.
University of Nashville	5	4	1
Vanderbilt	3	1	2
Memphis Hospital Medical College	44	29	15
Louisville Medical College	9	1	8
New Orleans Medical College	5	2	3
Atlanta Medical College	1	1	..
University of the South	2	2	..
Barnes Medical College	3	1	2
Meharry Medical College	2	..	2
Ohio Medical College	1	1	..
St. Louis Medical College	1	.	1
Rush Medical College	2	1	1
Illinois Medical College	1	1	..
Kentucky School of Medicine	1	1	..
University Missouri	1	..	1
Tulane	30	20	10
Bellevue	1	1	..

SECTION ON MEDICINE.

UNDER CHARGE OF W. L. NICHOL, M.D.,

PROFESSOR OF DISEASES OF THE CHEST, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; AND

E. G. WOOD, A.M., M.D.,

PROFESSOR OF PRACTICE OF MEDICINE AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

MANAGEMENT OF TYHOID FEVER.

Dr. Solis Cohen (Pennsylvania Medical Journal) advises:

1. That the physician attempt to guide the patient safely through the attack.

2. That temperature of itself is not to be feared, and that when high should be controlled by application of cold water in some manner.

3. That the diet be the most easily absorbable food, preferably pancreatized milk or expressed beef juice, every two or three hours.

4. That water internally should be given freely; at least a quart in twenty-four hours and without waiting for the patient to ask for it.

5. That sleep should not be disturbed to take temperature or give broths.

6. That medication, if judicious, is useful. The bowels should be freely cleansed by enema if patient is seen before the tenth day. They should be acted upon with calomel. After the "calomel stool" intestinal antiseptics should be employed—guaiacol, beta-napthol, salol, etc.

7. For diarrhoea that is troublesome bismuth-salicylate is useful. Constipation can be overcome by an enema every forty-eight hours. Strychnine, gr. 1-60, every four hours is useful in the second week; in the third it should be increased to one-thirtieth of a grain.

THE CLIMATOLOGY OF PHTHISIS.

The Post-Graduate (June, 1898) publishes abstracts of the lectures of S. E. Solly, M.D., of Colorado Springs, recently

delivered at the New York Post-Graduate school. In speaking of phthisis, the speaker said:

"The causes of the prevalence of phthisis are: 1. It is a germ flourishing where there is a dense population. 2. The bacilli are inhaled from dry sputa. 3. Tuberculosis is transmitted from mother to child.

"It is less frequent on mountains, certain sea coasts, islands, deserts, polar regions. It does not increase with altitude. The climatic factor influences the prevalence and progress of phthisis. Animals confined in cages will have tuberculosis, when in air they would not. Fresh air is a disinfectant, while stagnant air favors the growth and virulence of the bacillus. Abundant sunlight purifies the air. Tangier is particularly noted for this. Water is purified by sunlight. Bedding and carpets are exposed to sunlight in order to destroy the germs of tuberculosis. This disinfection extends only to the surface. Oxygen is essential to its activity. Sunlight is a stimulant to the mental and nervous system.

"Humidity qualifies sunlight. Mortality is greater on clay than on sandy soils. This disease is found more in cold, damp climates, and is more rapid in hot, damp climates. Damp and cold climate is a factor in the production of phthisis. Phthisis should be removed from the sea. If it improves in sea air, it is because the air is pure.

"The prevalence of phthisis is in this order: 1. Damp, cold climate; 2. damp, hot climate; 3. dry, hot climate; 4. dry, cold climate. Recovery is the reverse, except that hot, dry air is usually better than cold, dry air. Hot, dry air is stimulating, and gives an opportunity for ventilation and an out-door life. The greatest purity of air is found in elevated regions, deserts and seas. As wind changes the humidity of the air, it should be considered. The prevalence of phthisis is increased or diminished by the wind. Warm, dry air is sedative; cold, dry air is stimulating and irritating; warm, moist wind is soothing and depressing.

"Consumption is more prevalent in moderately cool, moist, than in warm, moist climates. In moderately cool, dry climates phthisis is not prevalent or progressive.

"A cool, dry climate over 4,500 feet and above 35 degrees, in Colorado, is one of the best. Increased barometric pressure has a deterrent effect on phthisis.

"An elevated region, midway between the sea level and the snow line, is particularly immune from tuberculosis. In Denver and Colorado Springs indigenous cases are rare, only

twenty cases being reported in twenty-five years. The average ratio of deaths is three to one thousand. Colorado Springs, in twenty-three years, increased from one thousand to twenty thousand.

"Where the death rate at sea would be 630, here it is but ten. The element of contagion is absent. The air is sterile. Dust from hotels and sanitariums in Colorado, introduced into a rabbit, will not produce tuberculosis. Septic infection is also rare. From dust in hospitals there, not two per cent. of rabbits die by septic infection.

"Fifty-five per cent. die from the introduction of dust from tubercular ward in a New York hospital, and in another instance fifty-eight died from mixed infection.

"Tuberculosis occurs where there is crowding in cities, and where it had not existed before. The Sandwich Islands is an example.

"The bacilli of tuberculosis are easily killed, but if there is an invasion of many germs the disease may be as fatal as in low climates."—Medical Review of Reviews.

RAW COW'S MILK FOR INFANT FEEDING.

Dr. Edward F. Brush says that while boiled milk is practically dead as well as sterile, raw milk retains a certain degree of vitality which is inherent and useful. For this reason he looked upon clean, raw milk, devoid of pathogenic germs, as the best substitute for breast milk.—Pediatrics.

SECTION ON SURGERY.

UNDER CHARGE OF CHARLES BROWER, M.D.,

PROFESSOR OF SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

Dr. J. B. Murphy, of Chicago, at the meeting of the American Medical Association at Denver, presented a new treatment for pulmonary tuberculosis. Combined with the proper food and climate, he advised putting the lung at rest by compressing it. For this purpose he advised filling the pleural cavity with nitrogen gas. This gas in the pleura does not cause irritation and is not absorbent. At the end of a week it is to be withdrawn and air admitted. Return of the cough

indicates a further introduction of the gas. Dr. Murphy related five cases of advanced tuberculosis that had been benefitted by this treatment.

(Until Dr. Murphy publishes his method of application of this method and reports in full a large number of cases, the profession will do well to withhold an expression of opinion as to its merits.—ED.)

INJURY TO THE BRAIN.

Reported by A. G. Nichol, M.D.

The patient, Claiborne P., colored, male, aged 60, laborer, is a man of strong build and good constitution. On July 18, 1898, he received a blow upon the skull with an ax, the cutting edge striking near the posterior edge of the right parietal bone, slightly to the right of the superior longitudinal sinus, making a wound which extended diagonally forward and to the right for about four inches. He lost a great deal of blood, as the injury did not receive attention until twenty-four hours after the wound was inflicted, when he was brought to the Nashville City Hospital. Upon examination, a large clot was found to have collected in the wound. This was not disturbed until operation. The skull was badly fractured and pussure symptoms were manifest. The man had complete motor paralysis of left upper extremity and in the left lower extremity motion was very much impaired. Only the toes and lower muscles of the leg showed slight motion. Sensation was only slightly if at all impaired. At 9 p. m. July 19 Dr. Charles Brower was called and the patient was placed on the table under chloroform. The wound and its neighborhood were thoroughly prepared. The blood clot was removed and found to contain a considerable quantity of brain tissue, also some small fragments of bone. The wound was then irrigated and a careful examination made. It was found that the ax had penetrated to the brain substance, lacerating it considerably, the brain membranes being badly torn. An incision was made, beginning at anterior extremity of wound, passing forward, then outward, in curved direction. This flap was dissected up down to the bone. The broken fragments, three in number, were then removed. These fragments were very large, their combined surface being slightly larger than the palm of the hand. This left exposed a considerable portion of the brain. All spiculae were then removed with bone forceps, wound irrigated thoroughly

and a large slip of iodoform gauze was placed in the wound, leaving the ends of the gauze protuding from each extremity of the wound. The edges of the wound were then approximated, being careful not to include the gauze in suture. The head was dressed in the usual way. The patient was placed in bed in fairly good condition. The dressing was not disturbed until third day, when the wound was redressed. The wound was found to be perfectly clean. Slight traction was made on the gauze at each subsequent dressing and it was finally removed entirely. The wound is now practically healed and the patient's condition good except for the paralysis, which possibly will be permanent, due to injury to the brain. No internal medication was used except an occasional laxative.

LACERATION OF PELVIC TISSUES.

Reported by A. G. Nichol, M.D.

A white boy, Alex. K., seven years old, was run over by a two-horse wagon on June 5, 1898. He was shortly afterward brought to the Nashville City Hospital. The wound was examined by Dr. Brower, who found an entire separation of the pubic bone, complete laceration of the perineum, with a tear in the scrotum, exposing the right testicle, and the bladder in view through the perineal tear. He was in a condition of profound shock. The wound was carefully cleaned and packed with gauze.

On the following morning the pubic bones were approximated, the soft tissues united in their natural position, with gauze drainage, and the pelvis was encased in a plaster of paris dressing. For some days after the operation small doses of opiates were required by the severity of the pain. Strychnine was also used. The wound united by granulation. He was discharged with slight lameness.

The profession of the city of New York has met with a serious loss in the death of Dr. R. M. C. Page, late professor of medicine in the Policlinic. Dr. Page was of most amiable disposition, enthusiastic and successful as a teacher, and very widely known by his pupils and patients, and very much beloved. He was of a colonial Virginian family and was born in the South, but was graduated at our University College, and always practiced in this city. He was fifty-eight years of age.—Post Graduate, July, 1898.

SECTION ON ABDOMINAL SURGERY AND DISEASES OF WOMEN.

UNDER CHARGE OF M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

CYSTITIS.

Graham, in the New York Medical Journal, June 25, 1898, says that Pyoktannin blue in saturated solution applied after the following method, is of value: Introduce a catheter into the bladder, draw off the urine, wash out the viscus thoroughly, then with a small syringe inject through the catheter still in situ two drams of the Pyoktannin solution, followed by a syringe full of water.

After one or two minutes fill the bladder with water and let it run out; coutinue the washing until the blue color of the drug no longer stains the water. Considerable pain follows its use and morphine or cocaine will be necessary to give relief. The injection should be repeated every seven or ten days.

If the urethra is inflamed the solution should be applied to it by filling the catheter and gently withdrawing it, when the mucous membrane will be bathed with the solution, which can be washed out of the urethra by emptying the bladder.

STERILITY.

Dr. Gill Wylie, in the June number of the American Gynecological and Obstetrical Journal, says: Any disease which affects the endometrium, or which changes the character of the secretion, is liable to cause sterility. Many cases of women married four or five years, but sterile, present no well defined uterine disease other than a condition termed antiflexion. These cases are nearly always associated with dysmenorrhœa. The forward condition of the organ causes less trouble than the endometritis that always exists with these cases. These are cases of imperfect development; the uterus is always flexed in early life and straightens up at puberty, when development becomes complete. The organ often remains undeveloped because of want of proper exercise and food at the time when it should be perfected.

In typical cases the os internum is hypersensitive and there is a creamy yellow or thin acrid discharge from the uterus, instead of the normal secretion which should resemble the white of egg. The best thing to do in these cases is to devulse properly and thoroughly the canal, curette the uterus, and insert a rational drainage tube. The tube may be removed at the end of a week, when the mucous membrane will be healed. The patient may then get up and move about.

THE PESSARY.

Dr. Stone, in the Virginia Medical Semi-Monthly, says that in his experience pessaries are rarely of service. Women should not be subjected to eternal tinkering every few months to adjust a pessary. According to Tait, pus tubes are often due to the iufluence of pessaries. In some few cases the pessary will be of service. Its proper adjustment requires skill.

TREATMENT OF UTERINE FIBROIDS.

Dr. Franklin H. Martin, in an able article upon this subject published in the Medical Fortnightly, thus summarizes his article:

1. The only sure cure for fibroid tumors of the uterus of to-day is the total removal of the uterus.

2. The total removal of the uterus, while curing the tumor, leaves frequently a string of unpleasant sequela, causes death from the operation in at least 5 per cent. of the cases in the hands of experts, and deprives the woman of the possibility of bearing children.

3. Conservative methods of treatment which should be pushed to their legitimate possibilities are: Medical, Electrical and Vaginal Ligation of the Broad Ligament.

4. Fibroids would rarely destroy life if never submitted to a radical operation if submitted to the conservative treatment.

5. Electricity should be employed as a remedy for fibroids in all women over 40 or 45 years of age in which the tumor is interstitial. It should be employed in all inoperative cases of whatever age.

6. Vaginal ligation of the broad ligament may be employed as a conservative remedy in all bleeding fibroids of whatever age, especially in the few years preceding the menopause. It

should be employed in all cases of desperate hemorrhage when life is threatened, because of the loss of blood.

7. Removal of appendages should only be resorted to after the abdomen has been opened for a hysterectomy, and the latter is found inadvisable.

APPENDICITIS—WHEN SHOULD WE OPERATE?

Dr. Robert T. Morris is quoted as follows in the Indiana Medical Journal for June, 1898:

Within a month I have seen two cases in which the free abdominal cavity was filled with pus, and in which some of the consulting physicians thought that symptoms did not warrant operation. Within a year I have seen at least six cases in which the appendix was the focus of tuberculous infection which was extending to peritoneum and neighboring bowel, and yet the symptoms were so mild that several consultants had advised against operation. Within a year I have operated upon perhaps twenty-five cases in which perforation of the appendix had already occurred, and in which some of the consultants thought that the symptoms were those of "catarrhal appendicitis" only. Shall we, then, let members of the profession all use their own judgment, or shall we ask the men who are thoroughly familiar with the subject to teach principles and make rules for aiding those whose opportunities for gaining accurate information have been more limited? Human life is directly at stake in this matter. Physicians are directly responsible, because trusting patients place their lives, their hopes, their all, in the hands of physicians who are not at all prepared to take such sacred responsibilities.

SECTION ON OBSTETRICS.

UNDER CHARGE OF S. S. CROCKETT, M.D.,

PROFESSOR OF OBSTETRICS, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

DRY LABOR—ITS DANGER AND TREATMENT.

Brodhead describes such as where the membranes rupture in the early stage of cervical dilatation. Observations were made in the Stoon maternity. In fully 15 per cent. membranes ruptured rather before or with first labor pain. In a

much larger number of cases the membranes ruptured later, but early in the progress of cervical dilatation. Dangerous especially in primiparæ. In the majority of cases no cause of the premature rupture can to be found. In others disease of cervix or trauma seems to produce it. Occasionally rupture is produced by the accoucheur during digital examination. Infant mortality in these is very high and is to be attributed to two causes, asphyxia and meningeal hemorrhage. It is surprising to note the frequency of asphyxia of different grades. The reasons for this are several and apparent. Uterus contracts much more tightly around the body of the child after escape of the waters, with the result of compression of the placenta or cord against the parts of child. The pressure is much more apt to be continuous, and hence the uterus to become exhausted much sooner, the tonic contractions interferring greatly with the circulation of the uterine sinusus.

In regard to meningeal hemorrhage, in the absence of the "water wedge," dilation must be accomplished by the fœtal head, with the incidental production of a large caput succedoneum and oftentimes much moulding. This great and continuous pressure directly upon the occiput, with the consequent moulding, is very apt to result in meningeal hemorrhage, causing the death of the child a few days after birth. The dangers to the mother are those of any protracted labor—laceration of soft parts, predisposed by the œdema, pressure necrosis, hemorrhage, liability to sepsis, slow convalescence, not to mention rupture of uterus.

The danger signals in these cases with reference to the child are the escape of meconium early in the labor in any except breech cases, undue vigorous movements on the part of the child, and the sudden or progressive change in the rate of the fœtal heart beats, either sudden or progressive increase or decrease in rate of pulsation. With reference to the mother the danger signals are more apparent—rise of pulse, temperature and respiration, the restlessness, anxiety and despondency, the diminished vaginal secretion, the weak and inefficient pains, all are easily recognized. Mild sapræmia is not uncommon. In considering the treatment of the character of labor it should be borne in mind that the early rupture of the membranes puts a phase on the case quite different from ordinary labor. Thorough examination should be made at once upon the reported rupture of the membranes, both for the purpose of verification and detection of any abnormal conditions. After rupture of membranes the sooner labor

commences the better the prognosis for both mother and child. The author at once administers a dose of castor oil and glycerin, to be followed shortly afterwards by ten grains of quinine, repeated every three hours, with one-thirtieth grain sulph. strychnia every two houre, careful watch being kept for unpleasant effects of either. Before digital examination is made the genitals should be scrubbed with soap and water, then with either 1-2000 bichloride or 1 per cent. solution of lysol. Vaginal douches of three-quarters of 1 per cent. solution of lysol to be given hot every six hours are recommended to keep vagina sweet and clean lubricate mucous membrane and soften cervix. Chloral and opium must be given guardedly, for the waters gradually drain away while the patient sleeps. The use of the cervical and vaginal tampon is suggested as a means of retaining the waters in early rupture, while the dilatation proceeds. Early operative interference is suggested in breech cases even in the first stage of labor. In the second stages the author only waits one half hour for progress before using the forceps or extraction.—Gaillard's Medical Journal.

SECTION ON PATHOLOGY.

UNDER CHARGE OF LARKIN SMITH, M.D.,

PROFESSOR OF PATHOLOGY AND BACTERIOLOGY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

YELLOW FEVER IN THE ARMY—WHO IS RESPONSIBLE.

Upon the outbreak of hostilities it was distinctly announced by those most competent to judge that the great danger to our troops in Cuba did not reside in the Mauser bullet or the Spanish guns, but in the diseases which were endemic in the island, and especially yellow fever. It was recognized, however, that if the troops could be located upon the hills, with entire absence of communication or intercourse with the inhabitants of the towns, the danger of yellow fever would be reduced to a minimum. For the scene of a campaign which would be immune to yellow fever, the vicinity of Santiago afforded one of the most perfect battle grounds in all the tropics. The essentials of success in this particular are (1) high elevations, and (2) a complete quarantine against the towns. Weeks and months have been spent at the mob-

ilizing camps in instilling the fact that these two principles constitute the A B C of prevention against yellow fever. The first essential was attained, by bringing the campaign to a conclusion with the utmost despatch, so that the troops could be withdrawn at as early a period as possible into healthful camps upon the hills. The second principle, however, was violated with a degree of neglect and inattention that was little short of criminal.

Now that attention is withdrawn from the actual fighting and an analysis is being made of the conditions existing during those exciting days in the rear of the firing lines, it is discovered that sympathy for the reconcentrados entirely supplanted consideration for our own troops. Barriers of defense against the infected Cubans were broken down, and the hordes were allowed to spread the germs of disease throughout the entire army. It is asserted as a fact by Mr. H. L. Beach, an Associated Press correspondent, that he saw the army ambulances used to haul the sick and squalid refugees who were tramping through the mud from the front to the rear so that they might get food, these same ambulances also being used indiscriminately for transporting the sick and wounded from the dressing-stations and field hospitals. But worst of all is the fact that the commissary wagons were constantly going from Siboney loaded with supplies and returning loaded with refugees. It is a fact that no yellow fever appeared in the army until the lines were opened to these people from Santiago.

From another source comes the startling assertion that the yellow fever epidemic in the army is chargable directly to the Red Cross officials. Mr. William Gray of Washington, microscopist of the Army Medical Museum, on duty aboard the hospital-ship "Relief," is reported in the New York Sun as asserting that the Red Cross people instead of confining themselves to distributing food among the Cubans, as they had been instructed, opened army hospitals under the charge of the Red Cross surgeons in the Cuban houses or huts at Siboney, and it was among the troops exposed in these Red Cross hospitals that yellow fever made its appearance. The responsibility for this unfortunate condition seems to lie with the commanding officers or their medical advisers. The hordes of refugees should have been regarded as a pestilence, and compelled at the point of the bayonet to keep within quarantine bounds. That the first orders to burn Siboney should have been disregarded, and native houses within its

limits taken as hospitals, indicates a lack of discipline for which some one should be held to strict account.—Medical News.

TYPHOID FEVER IN CAMP.

The prevalence of typhoid fever in the various mobilizing camps is a source of great concern. It is likewise a serious reflection upon the sanitary authorities who are responsible for the health of these camps. In the whole list of common diseases there is not one which is so thoroughly understood as typhoid fever. The cause of the disease, the channels of its communication, and the means of prevention are so intimately known that its prevalence among a body of men is at once a proof that some one has blundered. This is not a pleasant reflection when we consider that typhoid fever has found its way into every national camp of instruction, and, what is more, has gone with the troops to Cuba and at the present time is responsible for more deaths among the soldiers in front of Santiago than any other single disease. Only two channels of infection need to be watched, viz., the water supply and the milk, and more especially the former. At Camp Alger, located near the very seat of our Government at Washington, infection occurred early and its march has been constant and rapid until deaths have been reported very frequently. The camp at Jacksonville is passing through a similar experience, as are those at Tampa and Miami. Camp Thomas, at Chickamauga, a great national park, affording every facility for a perfect camp, has not escaped the contagion. The action of the government in abandoning these camps and seeking new ones, even at great expense and trouble, is a credit to its humanity, but it should never have been necessary.

A circular letter and brochure, recently issued by the National Relief Committee, though not intended for that purpose, is a severe arraignment of the sanitary authorities. As it says, it may be clearly held to-day that the sacrifice of men, either at home or abroad through the ravages of water-borne diseases is, as a rule, not only discreditable, but is unnecessary and, therefore, unjustifiable. Not only is this committee insisting that all water used by soldiers should be boiled, but is making it easy to provide the soldiers also with water that has been submitted to aeration afterward, thus rendering it safe and potable, as well as grateful to the palate.—Medical News.

SECTION ON DISEASES OF THE RECTUM.

UNDER CHARGE OF A. B. COOKE, A.M., M.D.,

PROFESSOR OF ANATOMY AND CLINICAL LECTURER ON DISEASES OF THE RECTUM, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

LOCAL EXAMINATION AND TREATMENT OF DISEASES OF THE UPPER RECTUM AND SIGMOID FLEXURE.

Dr. James P. Tuttle contributes a valuable article to the New York Medical Journal, July 2, on this subject, in which he strongly emphasizes the utility of the proctoscope or "Kelly tubes" in the diagnosis of diseases of these parts. Neoplasms, while not the most frequent lesions, are of paramount importance from a diagnostic point of view. Especially is this true of carcinoma for the reason that when neglected its cure soon becomes hopeless. The early symptoms of intestinal tumors are not only obscure but strikingly similar, and are often mistaken for functional or inflammatory disorders. But the diagnosis can be easily cleared up by the use of the proctoscope if the lesion exists within the lower twenty to thirty-five inches of the intestinal tract.

The serious forms of benign neoplasms may usually be dealt with through the tube itself by the use of proper instruments.

In treating of the non-surgical diseases mention is made of three forms of catarrh, viz., *simple*, *acute*, *hypertrophic* and *atrophic*. The latter is a very common affliction, comprising about twenty-five per cent. of the cases seen at the author's clinics. All these forms of catarrh may be recognized through the tube as well as the several varieties of ulceration. The treatment of this class of affections consists in keeping the parts clean by means of saline or boric acid irrigations and applying the proper medication directly to the part through the Wales bougie.

The concluding paragraphs of the article are as follows:

"In conclusion, I wish to make two applications of the knowledge gained from a very large number of these local examinations of the sigmoid flexure and upper rectum.

"*Morning Diarrhoea.*—The so-called morning diarrhoeas, the symptoms of which have been so admirably described by

Dr. Francis Delafield, are, in my opinion, always due to some organic disease of the rectum, sigmoid, or descending colon. It may be cancer, polypus, papilloma, ulceration, or catarrhal disorder, but in every case I have seen I have been able to find some irritating condition of these parts to account for the diarrhoea, and still more, the diarrhoea has disappeared when the cause has been removed. The history of the case, the symptoms, the nature of the stool, etc., may lead us to fairly correct conclusions as to the cause of this condition, but we can never be certain until we have actually seen the parts, and upon this certainty will depend the accuracy and efficiency of our treatment.

"*Mucous Diarrhoea.*—Mucous diarrhoea is another condition due to actual disease. It is always associated with the follicular inflammation of the sigmoid flexure and colon. I have seen it frequently in atrophic catarrh of these parts, and perhaps other diseases may cause it, but I have not observed them. The colicky pains and exhaustion after stool accompanying this condition are due to temporary partial obstruction and consequent spasm. Prolapse or intussuception of the sigmoid is one of the most frequent causes of this. I have frequently seen this condition through the tube, and when the parts have been restored and a full high enema given, the mucus was passed without any pain at all.

" The nervous conditions associated with this form of diarrhoea appear to me to be all due to the disease causing it, and not vice versa. The doctrine that it is a neurosis appears to me utterly without foundation and not tenable in view of the conditions always found."

COLLODIUM IN THE TREATMENT OF PRURITUS ANALIS AND HEMORRHOIDS.

According to Samways, painting the anus with collodium will cure the pruritus completely in twelve to fourteen hours, and also tend to reduce the size of external hemorrhoids if applied on a tampon. The one disadvantage is a sharp burning sensation for a moment, which can be obviated by painting with cocaine beforehand.—Memorabilien, May 7.

SECTION ON MEDICAL CHEMISTRY.

UNDER CHARGE OF J. M. KING, B.S., M.D.,

PROFESSOR OF CHEMISTRY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; CHEMIST TO STATE OF TENNESSEE.

THE ACIDITY OF THE URINE.

Dr. T. R. Bradshaw, on the 28th of April, at the Liverpool Medical Society, read a note on this subject. (Britist Medical Journal.) He showed that litmus could not be employed as the indicator in the estimation of acidity of the urine, because solutions containing salts of phosphoric acid were never neutral to litmus; if they were not distinctly acid or alkaline they were amphoteric. He advocated the employment of phenol-phthalein as an indicator, and maintained that the objections which had been urged against its employment were not valid. His observations led him to differ from the teaching of Bence Jones and Sir William Roberts, who held that the urine was diminished after a meal. He found from the averages drawn from 160 estimations of the acidity of the urine of a healthy man that the acidity followed a fairly regular curve; high during sleep, it fell rapidly after "getting up," and remained at a minimum until about noon, after which it rose steadily, and reached a maximum about 9 p.m. He found that the absolute amount of acid excreted varied nearly on the same lines as the relative acidity; and, further; that it varied inversely as to the amount of water. The latter was a remarkable circumstance, which was unconsciously acted upon by the physician when he gave alkalies to promote diuresis.

DISINFECTION OF ENTIRE BUILDINGS BY MEANS OF SCHERING'S FORMALIN DISINFECTOR.

On Saturday, February 12, 1898, the Schering factory of Berlin effected a disinfection upon a large scale at Potsdam. The Schering people had been asked by the Royal Buildings Commissioner Allihn to disinfect an entire hospital, which it was designed to transform into a Royal Military Orphanage.

The building was two stories high and about 230 feet in

length. Each floor was divided into two parts by a longitudinal hall. There were two large separate staircase buildings and about fifty rooms, amongst which were several dormitories about 82 feet in length. The house had two fronts, both of which were provided with many windows.

The disinfection of the rooms one by one would have taken a great deal of time. It was therefore decided to disinfect the entire building at once. The cubic contents of the whole were about 211,893 cubic feet.

The main doors were closed and all their orifices sealed; the stove openings were shut up. The windows, though of old model, closed tightly and did not require sealing. All the inside doors were opened, so as to make one room of the building. Sixty-two Formalin Disinfectors were then placed in the rooms and halls of both floors, the apparatus itself being in each case placed next to the spirit lamp. Two workmen on each floor placed the apparatuses in position and set them going. At a given signal each workman filled his disinfectors with alcohol and formalin pastils. In all there was used 27½ pounds of formalin pastils. At a given signal all the lamps were lighted; and at a third one all the receivers filled with pastils were placed upon the lamps.

Arranged in this manner, the entire manipulation occupied 25 minutes. The workmen left the building through a door left open for that purpose, without being in any way incommoded by the Formalin odor. This door was then sealed. The workmen then left.

Within two hours, as could be seen from the outside of the building, the lamps had all burnt out. As the building was not needed immediately, the vapors were allowed to act for 48 hours. When the building was entered at the end of this time a very intense Formalin odor was perceptible in all parts of it.

This entire process of disinfection was so extremely simple that none of the other methods can, in our opinion, compete with it.

The test objects (staphylococci) placed in the building during the disinfection were, of course, found entirely sterile after it was completed.

THE

MEDICAL AND SURGICAL BULLETIN,

OFFICIAL ORGAN,

Alumni Association, Medical Dept., University of Nashville.

NASHVILLE, TENN., SEPTEMBER, 1898.

A CONTRIBUTION TO THE HISTORY AND ANATOMY OF THE FAVUS SCUTULUM.

BY JAMES C. KELLOGG, M.D.,

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Three periods may be distinguished in the history of the favus scutulum, the first extending from Willan and Bateman (commencement of the nineteenth century) to Devergie (1863) and Kœbner (1864), and comprising the time when in the descriptions of diseases of the hairy scalp certain mention of a "cup" may be encountered here and there, but without any accurate definition of its nature proper, nor of its special relations to favus.

The second period reaches from Devergie (1863) and Kœbner (1864) to Unna (1891), during which time the conception of the scutulum in the more accurate clinical definition of those authors obtained supremacy; but the necessary anatomical and biological definition was still wanting. This definition was first given by Unna, based upon experimental and histological research on the subject.

Since 1891 we have entered on the third period in which the favus scutula have been carefully studied, not only as regards the different kinds of favus, but also in their develop-

ment on various species of animals and in the various stages of their growth.

Willan* was the first to employ the word "scutulatus" in connection with a disease of the scalp, viz.: in porrigo scutulata, as he defined it. This affection, however, as is perfectly evident from his description and the English synonym, "ringworm of the scalp," was not favus, but what we now know as trichophytosis capitis, whereas favus is designated by Willan "porrigo lupinosa," and, on the other hand, his "porrigo favosa" corresponds pretty accurately to the eczema or impetigo vulgaris capitis of our times.

Samuel Plumbe† in his turn rejects the distinctions formulated by Willan and Bateman, which, albeit under other names, coincide almost exactly with the modern conception of the diseases favus, trichophytosis, and eczema of the scalp. According to his theory the six subdivisions of porrigo are only different stages and forms of one single disease, porrigo. But also in his writing the word "scutulatus" is not to be compared to our modern conception, as meaning a disease which is characterized by superimposed cups, but one which appears in circles (as in trichophytosis).

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Mahon, Jr.,‡ is the first Frenchman to accept the denominations of the older English authors, amplifying them by independent research. He described a sub-species of his "teigne faveuse," the teigne faveuse annulaire, as identical with the ringworm of the English, and consequently also with the porrigo scutulata of Willan and Bateman, and in this all French authors have subsequently followed him.

In Alibert's publications§ both the adjective scutulatus and the substantive scutulum are entirely absent. But in speaking of trichophytosis he mentions commendingly the definition of Willan, and transmits into French literature the appellative *scutiforme:* "Willan designe tres-bien cette maladie sous le nom de porrigo scutulata. En France on l'appelle souvent la teigne nummulaire."

From these expressions, most particularly, it is evident that originally the idea of a "cup-like" formation had no

*Willan-Bateman, "Pracktische Darstellung der Hautkrankheiten." Translated by Calmann and Blasius, 1835.

†Samuel Plumbe, "Praktische Abhandlung, ueber die Hautkrankheiten." Translated from the English, 1825.

‡Mahon, jeune, "Recherches sur le siege et la nature des teignes," 1829.

§Alibert, "Monographie des dermatoses ou precis theorique et pratique des maladies de la peau," 1835.

connection whatsoever in dermatology with the products of our favus, but only served like the word "nummular" to denominate circular-like forms of disease. Another expression generally employed in France in Alibert's time, for such centres of disease, was "teigne aux petits ecus." In passing it is interesting to remark that already at that time ringworm of the scalp was far more common in England than in France. Alibert says: "Le favus scutiforme se presente rarement a l'hopital Saint-Louis." Whereas at that period his favus vulgaire, which we also still call favus, was already one of the more frequent diseases in Paris. From this it would appear that we are indebted to Alibert for the classification of the favus of present times under this heading.

As regards facts, Rayer's* description of the cups of favus in his chapter on "Favus Sparsus." is the first which deserves to be called classical; but in all his works we fail to find the word "scutulum," and the adjective scutulata is by him only employed in the sense of the English authors in speaking of porrigo scutulata, without, however, translating it (as Alibert does) by "scutiforme," but by "figuratus" (favus figuratus Rayer—English ringworm). It is evidently a consequence of the comparative rarity of trichophytosis capitis in Paris, as compared to London; that also with Rayer his favus figuratus is assigned a subordinate position in comparison to favus sparsus. Rayer emphasizes even more precisely than Alibert the differences of the two diseases, but still he is unwilling to separate them completely from one another, following in this respect in the wake of Plumbe in England. In Cazenave and Schedel's† work we find the adjective "favosus" firmly established as belonging to our present favus. These authors namely call our favus, porrigo favosa, a name which Bateman only used for our present eczema (impetigo). Alibert and Rayer introduced the conception of the disease favus as it now stands, thus marking an advance on their English predecessors, but the adjective "favosa" they always used in the meaning of our present "impetiginous." Cazenave and Schedel are the first to separate the denomination favous from the impetiginous skin diseases.

The expression porrigo scutulata is at this epoch reserved,

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*Rayer, "Darstellung der Hautkrankheiten." Edited by Dr. Hermann Stannius, 1837.

†Cazenave et Schedel, "Abrege pratique des maladies de la peau," 1838.

in accordance with general custom in France, for trychophytosis capitis of our present nomenclature, but we find no indication of a searching study of the cups.

A step further in the separation of trichophytosis and favus was made by Bazin, who distinguishes in his *Lecons sur les teignes* (1853) two kinds of favus, viz.: a teigne faveuse with the sub-classes; lupineuse, scutiforme, en cercles and en anneaux (i. e., our favus and trichophytosis), and secondly, a teigne tonsurante ou tondante de Mahon jeune (the true trichophytosis of the present day.

It will be observed that, according to Bazin, ringworm of the scalp is still classed as a member of the collective group of the teignes faveuses. Nevertheless, it had already been accorded an independent position with the special feature of a "tonsurant" eruption. Only one step further was now required to drop the sub-class of favus scutiformis by amalgamating it with the teigne tondante, whereby the name of favus would become identical with our modern meaning of the word.

We now leave the French authors and their influence on the development of the nomenclature up to the middle of this century, and turn to Germany. Here the peculiarity and fungous nature of the so-called favus pustules, which had by their specific qualities already aroused the interest of former observers, had been demonstrated by Remak and Schoenlein. Later on excellent descriptions of the scutula had been published by Gruby, Malmsten, Gudden, Robin, Bazin and Lebert, but without introducing this precise name as a technical term. In order to avoid extending the subject unduly, I shall in the following remarks confine myself to those authors who have most prominently contributed to weld the nomenclature into its present form.

G. Simon* says of Lebert: "Lebert found that in porrigo scutulata the composition of the crusts was different from that of porrigo lupinosa. He states that in the former fungi occur, somewhat resembling in appearance those of the latter, but presenting smaller dimensions. Besides the crusts are said to contain a large quantity of epidermic cells. I have also frequently examined crusts of favus confertus, but have never been able to observe any such differences. It would appear, however, that Lebert does not take porrigo scutulata

*G. Simon, "Die Hautkrankheiten durch anatomische Untersuchungen erlautert," 1848, page 305.

in its ordinary meaning, but as synonymous with herpes tonsurans, a disease which will be discussed in treating of the diseases of the hair."

There can be no doubt that Lebert really meant our ringworm of the scalp when speaking of porrigo scutulata, and he could not do otherwise, following as he did his French predecessors. Evidently G. Simon was not conversant with the previous history of porrigo scutulata to so reproach Lebert. Lebert, moreover, had already clearly defined the great difference between the fungi of favus and of trichophytosis with the utmost precision, and I have cited the above histological sentence merely for the purpose of showing that in 1848, apart from porrigo scutulata, the other names for herpes tonsurans—teigne tondante Mahon, porrigine tonsurante Alibert, herpes tonsurans Cazenave, teigne tonsurante Bazin—had already become so generally accepted that, at least in Germany, the term porrigo scutulata had quite passed into oblivion.

In this way the cup-like or scutular formation, which, as we have shown, had played but a transient role in the chapter of tricophytosis, again came into prominence, and it will be easily understood that in the future it was readily able to gain anew a footing in the symptomatology of favus. But neither Lebert nor Gruby nor G. Simon nor Gadden in their truly classical descriptions of the scutulum of favus make use of any other terms than: *Pilzkoerper*, *Favus individuum*, *Favus masse*, *Teller*, *Schuesselchen or Naepfchen.* Hebra alone in the text of his large atlas (page 13), second series under the heading herpes tonsurans, mentions but once the word *Schildchen.* "In anderen Faellen sind die Haare ganz oder theilweise an cirkumscribierten Stellen ausgefallen, und diese dann entweder mit feinen, weissen, mehlhaltigen Schueppchen oder mit gelbbraunnen, trockenen duennen Kruestchen, die eine entfernte Aehnlichkeit mit einem Schildchen (scutulum) haben, bedeckt."

It is noticeable that here a reminiscence from the earlier English and French authors still holds sway, but one which has not the least connection with the present nomenclature of favus. This likewise applies to Fuchs* (1840), who used the word *favus scutiformis*, like Alibert, not as meaning our present favus, but for trichophytosis of the scalp, calling the

*Fuchs, "Die Krankhaften Veraenderungen der Haut und ihrer Anhaenge," 1840.

former disorder favus vulgaris, suberinus or achatinus. His clinical description of the disease, especially under the heading favus suberinus, is, it may be remarked, excellent, and his comparison of the favus mass to a piece of cork is worth noting.

In casting a glance, at the conclusion of this first period, at the principal work of English dermatology of those times, namely Erasmus Wilson's text book* (1850), I note with surprise that although it was in England that these new teachings on porrigo scutulata and its relation to favus had originated, finding their way over France to Germany, they had found just the very least acceptance in their native country. Wilson is indebted to the French authors of his time for the conception of favus as a special disorder without any connection with the impetiginous diseases of former English writers. Such a thorough disposal of the old hazy ideas and the dismissal of the antique Porrigo with the appellation scutulata would mark a most satisfactory advance, if it were not that trichophytosis (under the subdivision of favus confertus) again creeps into Wilson's thus simplified favus. His manner of discussing it produced a most confused condition of the symptoms of both diseases. We are all the more at a loss to understand this mistake, as E. Wilson possessed a far greater amount of material for his studies on trichophytosis in London than his predecessors in Paris had enjoyed, and it is clearly evident from this single chapter that at that time Wilson was completely under the influence of his French contemporaries. A classical description of trichophytosis (which had already previously been first correctly comprehended by his countrymen Willan and Plumbe as a special affection) such as we might justly have expected from him above all others to have given us, from his own observations, he denies us. Indeed, we seek in vain in his work for a description of the disease which might even compare with Willan's description of porrigo scutulata.

Devergie† was the first, as far as I know, to introduce the names "teigne scutulee" and "favus scutulata"‡ for our favus in his text book on the diseases of the skin. This is the landmark which indicates the second epoch in the literature

*Erasmus Wilson, "Die Krankheiten der Haut." Translated from the English by Dr. Schroeder, 1850.

†Devergie, "Traite pratique des maladies de la peau. Troisieme edition, 1863. (Devergie may have employed this term already in his first edition, 1854.)

‡Deveagie attributes the feminine gender to the word favus.

of the subject; from this period on the term scutulum is exclusively attached to favus in the modern sense. Whether this new arrangement of the term resulted from an already accepted and customary classification of those times (1863) or was originally coined by Devergie is a question I am unable to decide. These are his own words:

"En même temps, ce bord détaché semble se déprimer sur luiméme au fur, et à mesure que la capsule s'élargit, en sorte que l'ensemble du produit organisé prend la forme d'un godet, que nous comparerons, pour en donner l'image (que l'on nous passe cette comparaison) à un petit lampion, le centre restant toujours traversé par le cheveu. De deux choses l'une: ou chaque godet s'est développé à une certaine distance l'un de l'autre, et alors il s'étale, s'élargit également et produit une espèce d'écuelle en prenant des dimensions plus ou moins grandes, de lá le nom de favus scutulata donné à l'une des variétés de la teigne faveuse."

These words imply, it will be observed, an entirely different conception of the scutulum than was associated with the previous denomination of porrigo scutulata in English literature.

In the year following (1864) Koebner,* writing probably quite independently of his French antecedent, speaks of the favus scutulum as a perfectly recognized formation: "For if herpes tonsurans were indeed only the precursor of favus it must of necessity be possible by means of accurate methods to produce favus with the fungus of herpes tonsurans, the trichophyton, and even (if Hutchinson's theories were founded on facts) to make the microsporon furfur bring forth, on inoculation, herpes, or eventually favus. On the other hand, the question arose whether the achorion was capable of producing such prodromal changes in the skin before the formation of the scutulum that would be similar to the symptoms due to the microsporon or trichophyton."

Koebner hereupon proceeds to demonstrate the fact that favus, trichophytosis and pityriasis versicolor are diseases distinct from each other, an observation which was epoch-making at that time.

He notes that favus has a herpetic primary stage, and then continues: "This herpetic stage continues, as a rule, for five to seven days; the little circles then commence, though oftimes not simultaneously, according to the sequence of their

*Koebner, "Klinische u. experimentelle Mitteilungen aus der Dermatologie und Syphilodologie," 1864.

formation, to turn a paler red and to desquamate, while the scutulum proceeds to form in the centre. Even before the pale yellow dots appear in the place of the hair which occupies the centre of each little circle, this further alteration evinces itself by a parchment-like induration beneath the epidermis, perceptible only to the touch, not to the eye. The superjacent epidermal covering is then penetrated by the scutulum in the vicinity of the hair, the centre of the scutulum retaining a paler yellow color and gradually becoming more depressed, while the periphery, where the epidermis takes longer to burst, takes on a sulphur-yellow color and extends concentrically."

In continuation Koebner says: "* * * Here I found a circle, the size of a two-groschen piece (farthing), of a deep red color, presenting vesicles at its margin, a number of which had been destroyed by scratching, and in its centre a very small favus scutulum with an excavation in the middle;" and finally "on which two or three very broad favus scutula of various sizes corresponding to the successively former circles of vesicles were visible."

The following sentence is very characterittic of Koebner's accurate observation and his independent opinion on this process, which had previously been so often insufficiently studied: "As the hairs, the root sheaths of which first become diseased by the influence of the mycelia and conidia (of the same kind, though much smaller than those on the human being), begin to fall in larger quantities the *scutula* themselves become loosened and finally fall off; but I have never noticed *the least accumulation of pus.*"*

Of external differences between the herpetic prodromal stage of favus (dermatomycosis achorina) and true trichophytosis (herpes circinatus) Koebner speaks as follows: "* * * small circles, similar to one another in form, remain, and their centres very soon become the seat of a scutulum and do not heal."

An examination of the text-books† that have been published since 1864 shows that from this date forward all authors make more or less use of the term scutulum as a characteristic clinical symptom of favus, but only a few authors

*Koebner quotes from two authors who have written upon the scutulum in fowls—Muller and Gerlach. I was unable to ascertain whether they make use of tne term scutulum or not.

†Among these, Neumann alone persists in accepting porrigo scutulata (Lebert) as equivalent to our modern favus.

give a more accurate definition of its composite parts; and here already we note the same peculiar discrepancy in the conception of the entity of the scutulum that has persisted up to the present day. This difference cannot be better demonstrated, and with greater brevity, than by quoting literally two of the more modern authors. Lesser says: "Especially in favus, the scutula, which I shall now proceed to discuss, present veritably pure cultures of the favus fungus." Weyl, on the contrary, writes: "In sections one mostly observes both on the upper and under surface of a scutulum a kind of covering of epidermis cells, while the substance itself consists of an enormous accumulation of threads and conidia, besides zooglea masses, rod-shaped and spherical bacteria, epidermis cells and pus."

Since the cultivation of the fungi of favus and ringworm by Koch's method was introduced as a scientific procedure, and it was found that many kinds of favus can closely resemble the fungus of trichophyton on the artificial media (the same as the affections artificially produced by them on various animals present great similarity), the correct definition of the scutulum has naturally assumed a considerably greater importance with regard to the diagnosis of favus than it formerly possessed. I consider it therefore a huge step forwards that Unna, backed by his histological studies on favus in man and animals attempted to differentiate the scutulum from the similar products of the disease (the crusts and squamæ of favus) more accurately than had hitherto been done.

Unna* gives the following definition of the scutulum: "In order to disperse all doubts on this point we must enter somewhat more fully into the question of the scutulum. Hitherto this formation has always been considered from a purely clinical standpoint; but, as will be seen, the scutulum is capable of an accurate histological definition, and it is evident that thus in future the diagnosis of favus will gain considerably in precision if, as I propose, the presence of a scutulum is accepted as a criterion.

"That the scutulum consists chiefly of fungi has always been known since Schoenlein's publications, but it was thought that the stratum corneum participated to a certain extent in the formation of the cups. I will entirely refrain from dis-

*Unna, Drei Favusarten, Monatsh, f. prac. Derm. Bd. xiv., 1892.

cussing the reports of those otherwise perfectly reliable observers, who assert that the fungi of favus in their normal development penetrate the epidermis and the cutis, for in this respect the methods employed for examination were decidedly inadequate. Their remarks on a participation of the epidermis in the formation of the scutulum are likewise incorrect: The roots of the scutulum are to be found in the basal stratum corneum, and its sides and superficies are in the beginning always covered by the middle and superficial stratum corneum in a condensed state, from which, however, it is often liberated in the later stages.

"Now, the quality which distinguishes the scutulum from all other fungous vegetations in the stratum corneum is the perpendicular up-growth of the mycelia from this latter. The cups are, to a certain extent, similar to the upper portion of a culture on a solid medium, that portion of the aerial hyphæ in which these hyphæ, mutually supporting and encircling one another, rise from the surface of the medium and form an independent fungous body above it. Consequently, in the scutulum the subtratum and the mycelia always stand at right angles to one another, while in the horny scales of pityriasis versicolor and the trichophytoses, which are also permerted by fungi, the fungous threads form acute angles with the cells of the skin, or run parallel to them. This latter kind of permeation reminds one of the manner of growth in the anaerobic hyphæ in cultures on solid media.

"However, there is a cardinal difference between the aerobic hyphæ and the scutulum; the former grow free in the air without any external mechanical impediment and in a superfluity of oxygen. The hyphæ of the scutulum in their perpendicular tendency must conform to the pressure of the corneous covering and vegetate without superfluous oxygen. They push the horny layer mechanically on before them without penetrating into it. Indeed, in single cases a number of mycelia may be found growing on the corneous covering itself and working downwards towards the center of the cup. Only they remain—as cannot be otherwise expected on this meagre ground of dead cornified cells—themselves proportionately meagre. And this latter circumstance is further the cause that the scutulum, if we consider it as a globular and on all sides retrograding culture, presents itself as an asymmetrically formed culture.* Its base grows very

*The same sentence and almost in thə samə wards are found in Unna's "Histopathologie," page 381: "Man kann das Scutulum als eine Kugel-

luxuriantly, the lateral portions progressively less so, and the superficies very little. As the pressure that the increasing spherical body exercises on the horny layer may be supposed to be uniform, the superficial portion, where there is less proliferation, suffers least and becomes excavated towards the center of the fungous globe. Hence the very manner of its formation will render it imperative for every scutulum, may it have arisen from the funnel of a hair-follicle or not, to produce in course of time an umbilication on its surface and to assume in general the well-known cup-like shape. This explains why cup-like scutula are also frequently found on inanimate media with other fungi where similar impediments to growth are present."

Further on Unna continues: "The external (lower) zone of each scutulum consists of hyphæ placed like palisades in close approximation to one another without any intermingling of corneons structures. Frequently one finds them interspersed with masses which stain with difficulty; these are dead and empty mycelial tubes. But, although these fungous bodies are independent and in strict contrast to the horny layer, they by no means lie merely isolated in it. On the contrary, they take root in it by means of numerous small fibres; and according to the number of these latter the adhesion of the scutulum to its substratum is more or less considerable.

"The inner (upper) zone of the cup consists of spores, which become severed after the manner of oidia and often coalesce in the center to a dense layer. The complicated formations of the later stages, as found in cultures on solid and fluid media, are not formed in the scutulum any more than they are within the horny layer and the hair.

"Bearing in mind these peculiarities in the formation of the scutulum, we can without difficulty understand why simple processes of inflamation or regeneration in the epidermis will at once cause the scutulum to fall off. If, as many observers have believed, the mycelial fibres were able to pene-

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foermig in rech zuruck laufende Kultur betrachten, die aber asymmetrisch ausgebildet ist." Woelsch's assertion (page 54) that Unna attributes to the scutulum an entirely (durchaus) spherical (Kugelige) form is therefore incorrect. The first commencement of scutulum formation in the hair-follicle as described ad depicted by Wolschlis naturally (Kegelfoermig) ten-pin-like in form, not however the fully formed scutulum which is the subject of Unna's remarks; for in this the uppermost portion of the hair-follicle has long since been expanded to a horizontal plane, nor the younger scutula, which form independently of the hair follicles.

trate the prickly cell layer without meeting any resistance, there could exist no certain boundary between the scutulum and the prickly cell layer in the basal horny stratum, it would be hardly conceivable that the elimination of the cups in toto should be so easily brought about. But we often observe that the scutula, not only those produced artificially on animals, but also the spontaneous ones, are wholly or partially lifted up by a thick horny layer or crust. Indeed, we occasionally meet with a storied construction in consequence of an uplifted scutulum impinging with its free end to a considerable extent on a neighboring one. Between the two a crust is generally to be found; the product of secretory inflammation of the epidermis. Never, however, do we observe an ingrowth of proliferating epithelium into the scutula or that the latter are traversed by the products of inflammation. The scutulum as a special entity is always either avoided or eliminated."

In another place he says: "Besides these typical scutula, presenting the special features which I have specified as characteristic of the real scutulum, I have, on inoculating the favus virus, been able to produce a large number of pathological formations of a lower order, ranging from slight imbrication to thick inflammatory crusts and abortive and degenerate scutula in one continuous series. Generally, quite a number of such processes arise in unsuccessful inoculations, and I shall take the liberty of exhibiting a few of them, to show the difference between these and the real scutula. *Fungus scales* (*Pilzschuppen*), I have designated those plainly presenting evident vegetations of fungi, hyphæ, and spores of recent production, spreading horizontally within the lowered stratum corneum. *Fungus crusts* arise from those inflammatory processes in the eyithelium that lead to the destruction of the fungi and impede the formation of a scutulum. Further, the horny layer containing the fungi harbors here and there in its fibrinous substance occasional leucocytes, and the mycelia generally exhibit considerable changes, principally spherical and gem-like (gemmenaehnliche) intumescences. These fungus crusts are distinguishable from abortive and degenerate scutula through the complete blending of the component parts of the skin with mycelia.

In these, as in the perfectly.developed scutula, the fungus in itself is found inserted in the horny layer, as a flat or as a more spherical body. But the above-mentioned regular arrangement of its elements is wanting; staining is difficult,

and the abnormal convolutions and swellings indicate undeniable processes of degeneration. These colonies of fungi generally consist of an intricate, compressed, barely-stainable and at all events defunct, dense net of mycelia, with a sprinkling of readily tingible coarse nodes which remind one somewhat of the (gemmenaehnliche) gem-like forms in the cultures. Oidium constrictions are entirely absent.

It has struck me as particularly interesting that some of these degenerate scutula exhibit an interspersion of cocci which thrive luxuriantly in them, and are possibly the cause of the decay of the scutula, or else perhaps penetrate the latter after their life is extinct. I here present such preparations obtained from rabbits and cats. But I will not omit to accentuate that, contrary to the opinion still erroneously entertained by many, in normal scutula we have by no means a hot-bed for cocci, bacilli and other indifferent parasites. The frequent contamination of favus cultures is not due to intra, but extra scutular parasites. These, of course, are present in enormous numbers on every scalp. *The scutulum contains during its normal growth neither foreign parasites nor epithelium.*

The most recent publication on the favus scutulum contains various attacks on the definition given by Unna, and if these objections were unimpeachable we would find ourselves quite as much nonplussed regarding the importance and action of fungi in dubious cases of favus as before Unna's researches. To mention only one point, if it were correct as Woelsch* has asserted, that epithelial cells are found in the center of the scutula, this latter would not be so readily distinguishable from the larger scales observed in trichophytosis as is really the case. Woelsch says: "The scutulum consists, *but not exclusively as stated by Unna*, of the elements of the fungi, bound together by an intermediate substance."

From this we may infer that Wolsch, in spite of Unna's teaching, based on so numerous accurate examinations of favus in man and animals, returns to the old doctrine of Bennett, to the effect that betwixt the hyphæ of the scutulum there is present a finely granular mass, as depicted in Fig 10, page 606, in Hebra and Kaposi's work, and defined by Hoffmann, 1887, (*vide ibidem*), as "an organic detritus and granules of variable form and size." After such an assertion one would await with much curiosity the proofs which Wolsch

*Woelsch, *Arch. f. Derm. u. Syph.* xxxi. Bd. 1 Heft, 1895.

might bring forward concerning the presence of another substance besides the fungi in the scutula.

For since Unna has denied the existence of such a substance, it would have been Woelsch's duty to describe it accurately if he wished to introduce it anew. But in all Woelsch's work I have been unable to discover the barest attempt of a proof of the existence of such a substance.

Consequently, the first subject which I selected for reinvestigation was this "intermediate substance" in the scutula mentioned by former authors, and recently again described by Woelsch.

Woelsch continues: "The fungus presents a tendency to peripheral extension, a fact upon which particular stress may be laid in refutation of Unna's statement that the growing ends are directed from the skin towards the center of the scutulum, a peculiarity which he considers as characteristic of the growth of favus."

In confirmation of this statement, Wolsch refers to a preceding sentence which reads as follows: "In the center of the scutulum, and in the larger ones also, and in their upper portions, accumulations of conidia only are found, and towards the periphery conidial tubes and hyphæ; while in the confines of the periphery itself naught remains to be seen but the hyphæ which, like adherent roots (?) (Haftwurzeln), projects into the surroundings (?)."

From this it is evident that, contrary to Unna, Woelsch accepts a centrifugal mode of growth; apparently he seems to believe that the peripheral isolated hyphæ are capable of penetrating the stratum corneum, and this in a direction perpendicular to its surface; while at the posterior end of these same hyphæ in the center of the scutulum, disintegration and formation of spores takes place. In opposition to this conception, Unna gives a centripetal growth to the favus located within the scutulum; according to him, the peripheral ends of the hyphæ adhere merely as roots,* as it were, in the horny layer, serving to supply the whole scutulum with nutriment derived from the epidermis; the process of growing, however, is directed inwards into the center of the scutulum."

It was my second task to attempt a solution of this con-

*It is worthy of comment that Woelsch, *vide supra*, attributes to these same peripheral endings the appearance of "adhering roots" (Haftwurzel), a term which would hardly appear appropriate for the *youngest advancing* offshoot of a plant.

troversy. Naturally it would be impossible to decide it by continued observation of a scutulum *in vivo;* an accurate comparative examination of the central and peripheral end filaments was indispensable. But I will remark here at the beginning, that Unna's opinion regarding the growth of the scutula corresponds exactly with the opinions of botanists concerning the growth of the oidia fungi in general; whereas Woelsch's statements would give to the favus fungus a perfectly different and new position in the system of fungi. Grawitz was the first to demonstrate the similarity between favus and trichophyton fungi on the one side, and oidium lactis and albicans on the other as regards growth; and since then no one has doubted that the hyphæ of favus really grow, like the oidia, in an advancing direction, while simultaneously they form spores and disintegrate as such in the rear. In the oidia the direction of growth of the filaments is opposite the direction of the constriction of the spores. Link and Leunis* give the following definition of the species, "oidium:"

"Seed-hyphæ, simple, with transverse partitions, delicate, perishable, colorless, having a terminal chain of spores which form by the seed-hyphae constricting one spore after another, so that the undermost spore is the youngest * * *"

Here it must be remarked that in many species of oidium there is no difference appreciable between the fruit-hyphæ (seed-hyphæ) and the ground-hyphæ (bodenhyphen) (Unna), i. e., the specially so-called mycelium of botanists, e. g., in oidium albicans, the fungus of thrush (*vide* among others Leunis, *loc. cit.*). The "mycelium" of botanists, the network of the ground-hyphæ (Unna), is, as I have learnt from Unna's lectures personally, in all respects comparable to the growth of the trichophyton fungus on the human skin, and also to the imperfect growth of the favus fungi, as observed in the scales and crusts of favus (favus herpeticus autorum). Here the hyphæ grow in all directions, spreading in lots in a serpiginous manner, and the spores are isolated by constriction from the periphery towards the centre. The scutulum, on the other hand, developes as soon as the favus fungi find a suitable spot within the stratum corneum (generally, though not always, in the funnel of the hair follicle) where they become encapsuled, and from this moment—exactly in the same manner as the oidium species in nature, and our

*Leunis, "Synopsis der Pflanzenkunde." 3 Aufl., 1886, Bd. iii., p. 446.

favus fungi on solid artificial media—fruit-hyphæ are formed, that is hyphæ mounting perpendicularly from the culture medium and producing spores by constriction from the summit in a downward direction.

Hence it is evident that Unna's doctrines on the special features of the scutular growth exactly coincide with the teaching of botanists on the growth of oidium fungi in nature. The differentiation drawn long ago (in his flora dermatologica) by Unna regarding aerial and ground-hyphæ when grown on artificial media, perfectly agrees with the observations of botanists on mycelium aud fruit-hyphæ. But as the scutulum does not grow free in the air, the term fruit-hyphæ is more applicable than that of aerial hyphæ for the hyphæ which mount in a vertical direction from the epidermis. Therefore, when a scutulum is formed from a favus scale, we are justified in explaining the process botanically, and also in accordance with Unna's theory, as a transformation of the ground-hyphæ (bodenhyphen, the mycelium of botanists) into fruit-hyphæ.

The material at my disposal for examination consisted of 1, young lentil-sized scutula from a recent case of favus, and 2, a large number of old favus masses, i. e., accumulations of older scutula from a long-standing case, which had been submitted to Dr. Unna for examination. The greater part of these masses possessed no covering of the stratum corneum, but were traversed by cornified layers and crusts, so that microscopically even one had an impression of dealing with scutula which had suffered secondary changes.

This difference between the two cases became still more apparent on microscopic examination. I will therefore confine my remarks concerning the development of the scutula themselves to the conditions observed in the younger scutula, and will afterwards give a description of the changes which they undergo in consequence of secondary influences.

As it appeared to me of the greatest importance to discover the nature of the masses that almost resisted staining, lying between the fruit-hyphæ, I was obliged to seek for a stain which would permit of coloring them as much as possible, By the advice of Dr. Unna I employed bleaching by the solution of acid fuchsine-tannin, first introduced by him (obtainable from Gruebler). After several comparative experiments with this and other methods and other means of fixing (bichromate of potassium, red ferric cyanide, iodine), I eventually adhered to the composite tannin solutions as bleaching

agents. For staining, the most useful agents appeared to be Unna's polychrom-methylene-blue solution and the gentian-aniline water mixture. I will proceed to give in detail those methods for staining the scutula which proved most serviceable to me in this series of investigations.

The material to be examined is generally exceedingly dry, and must therefore be first softened by immersion in water, whereupon it is embedded in celloidine and cut in the usual manner. The sections are then placed once more for ten minutes in warm water, or in a 2-5 per cent. solution of soda, which is heated until vapor rises up, so that they become sufficiently soft, whereby bleaching is more readily achieved. This is followed by washing in water, and then the preparations are immersed in the straining fluid.

Where the study of the living hyphæ and spores in the scutulum is the sole object, the following simplified method will suffice:

I.

1. Polychrome-methylene-blue solution, 10 minutes.
2. Wash in water.
3. Dry on the slide.
4. Decolorize with aniline oil –|– 1 per mille H Cl.
5. Aniline, xylol, balsam.

This method of staining is simple and yields better preparations than those obtained where bleaching is done with ferric cyanide and hydrochlorate of aniline or bichromate of potassium and muriate of aniline after staining with polychrome-methylene-blue, although these are also good agents.

But if, as was my chief aim, the dead portions of the scutulum, especially the barely tingible periphery, is to be placed in evidence, the following two double stains will, according to my experience, render the best services:

II.

1. Acid fuchsin-tannin solution (according to Unna), 24 hours.

2. Wash with acidulated water, preferably on the slide after superficial drying.

3. Polychrom-methylene-blue solution, a few drops, just sufficient to cover the preparation, then heat over a flame till vapor rises, whereupon again wash with acidulated (HCl.) water, whereupon the section must present a blue coloration.*

*Should the red color reappear, heating in the solution of polychrome-methylene-blue must be continued.

4. Dry the section and again cover it with acid fuchsine-tannin solution till it presents a mixed blue and red color.
5. Thoroughly wash in water to remove the tannin, place it upon the slide and dry.
6. Remove all traces of water with aniline oil –|– 10 per cent. tannin.
7. Aniline, xylol, balsam.

III.

1. Gentian-violet-aniline water, 5 minutes.
2. Wash in water.
3. Acid fuchsin-tannin solution, 2 minutes.
4. Wash thoroughly in water.
5. Dry on the slide.
6. Decolorize with aniline oil –|– 1 per cent. of muriate of aniline.
7. Aniline, xylol, balsam.

This last described method seems to be the best for simultaneous demonstration of living and dead mycelia.

By means of these methods I first essayed to answer the question: Are foreign substances contained in the scutulum besides the fungi?

In order to answer this query it will be necessary to turn our attention first of all to the barely stainable masses in the periphery of the scutula, for these especially have been the masses which many former authors believed to be epithelium, or the broken-down remains of such, or else inflammatory products. These masses increase in proportion to the age of the scutulum. In the young scutula they are restricted to a thin, outermost zone, while in many of the old scutula which I have examined a broad band, projecting more and more towards the center, has evolved itself. Finally the easily stainable, centrally located fungus is entirely, or almost entirely, supplanted by these badly staining masses.

From these conditions alone, and even before gaining insight into those masses by improved methods of fixation, it is clear that the hardly stainable masses exhibit qualities which are the reverse of those of the fungus itself, and that step by step from the outlines of the preformed scutulum towards the center of the fully-formed structures they progressively supplant the original favus fungus. If, as is generally believed these structures were of epithelial origin, a comparison of the scutula in their various stages of development would yield the remarkable results that the older they are, the more

they are permeated by epithelium from the periphery; whereas these same advocates of this theory are disposed to consider the masses to be old, defunct and disintegrating epithelium. In my opinion, such cells would be quite unable to migrate from their definite locality and advance like young epithelium does. Besides, the possibility that we are here dealing with young epithelium, having a tendency to progress in a centripetal direction, must be rejected for the one reason alone that in these masses. as will be presently discussed, no nuclei are found.

On staining these masses by the double methods above described, however, they will be found to dissolve into a dense network of varicose, swollen, antler-shaped formations, which take the red color of the acid fuchsine, contrary to the hyphæ and spores of the center, which are colored intensely blue (methylene blue) or violet (gentian). In very good sections it is possible to demonstrate at the boundary between the deeply-stained fungous masses and the barely-stainable masses of the periphery, appreciable transitions from the blue and violet-colored hyphæ to the rose-colored branches of the latter. At this point the hyphæ lose their dark color and become considerably swollen but retain their peculiar knotted and antler-shaped form, which distinguishes them, even after losing the fungus stain, very plainly from the coarse epithelial masses which surround the scutulum, and have often also taken on the acid fuchsine stain.

On the exterior the red-stained masses of defunct or empty fungus tubes are bounded by the stratum corneum, which encloses the scutulum and is in some parts red, in others blue. In the younger scutula these masses are traversed by a few palisade-like blue or violet-colored hyphæ, which are rooted in the surrounding horny layer. In the older scutula, on the other hand, these last peripheral off-shoots of the living fungus are missing, and the connection between the remnant left vegetating in the center and the horny capsule is preserved by the defunct though firmly coherent hyphen tubes.

It is a remarkable fact, and one which can be verified anew in every scutulum, that at certain parts the cornified cells penetrate for quite a short distance, one or two cell-breadths perhaps, into the interior of the scutulum and are perceptible between the hyphæ, be they dead or still living, whereas at other parts the scutulum is bounded by a sharply demarcated margin of horny cells. These cells projecting farthest into the scutulum and receding from the margin rest of the

horny layer can nevertheless readily be recognized as to their nature. They form masses, exhibiting here and there remains of nuclei, and by no means appear as masses in process of disintegration or in the act of dissolving into an amorphous granular mass, as has been presumed by some investigators. They simply lie disconnected between the most peripheral off-shoots of the scutulum.

The following assertions of several dermatologists I have, therefore, been quite unable to verify, inasmuch as they refer to the scutulum containing epithelium and decomposed and detritus-like remains of epithelium.

Gudden had repeatedly mentioned detritus, though of a molecular kind (page 7, 8, 27), into which the fungi themselves dissolve when dead; and also G. Simon (page 300) speaks of "a mass consisting of small molecules," in such a connection with his description of the fungus that he also without doubt may be believed to have hereby meant disintegrated fungus elements. In the same manner Kuchenmeister (II. Pt., 1855, pp. 56-57) mentions an "amorphous, homogeneous, very finely-granular stroma consisting of organic substance," with regard to which he expressly stated that it is neither pus nor serous exudate, nor of epidermoidal nature, but belonging to the fungus itself.

Nevertheless, in Hebra-Kaposi (1876, pages 607 to 608) we find the subject curtly dismissed with the following remark:

"The finely-granular, pasty mass by means of which the favus elements adhere together is derived from the products of decayed epidermis cells and the secretions of the glands" —Hebra having already in his Atlas included the "epidermis" among the composing elements of the scutulum.

Henceforth this "epithelial detritus" in the scutulum seems to have achieved quite an established position in dermatological works. Behrend, writing in 1879, says (page 502):

"Further, one always finds epidermis cells and granular detritus, which latter the adherents of modern mycology so delight to term micrococci," by which he perhaps means the statement of Neumann (Lehrbuch, 5th ed., p. 625): "This is followed by a layer of finely-granular massess (micrococcus)."

From these quotations it would seem as if a transformation of fully developed cornefied cells into granular masses were a generally recognized fact. We do indeed know of a series of degenerations of the horny masses with partial lique-

faction, thus the "nuclear degeneration" in cutaneous horns and in onychogryphosis, as described by Unna, in which granules possessed of considerable tingibility in the manner of nuclei develope in the interior of the cell membrane. Further, we may mention the well known liquefaction of horny cells, leading to the formation of excavations like marrow cavities in solid cornefied structures. But these two ordinary kinds of degeneration of horny cells are always observed in connection with papillæ, rising high up in the horny mass and imparting to it a wave-like structure. The kinds of degeneration here referred to are always found as points exactly above the summit of the enclosed papillæ; the horny masses between present no trace of such changes (*vide* chap. on Hauthorn u. Onychogryphose in *Unna's Histopathologie*).

But apart from the fact that the surroundings of the scutulum even on the under surface exhibit no papillæ rising up into the horny layer, it must be remembered that nobody has hitherto really observed and described these generations just referred to, within the scutulum or even at its borders. I can, therefore, only presume that these amorphous masses, which are so difficult to define, this detritus of former authors, must be identical with the defunct peripheral hyphæ, or that old scutula, infected secondarily by cocci and bacilli, may have been examined, and that the micro-organisms were mistaken for decayed epithelium.

As regards the questionable presence of epithelium in the scutula, therefore, I quite accept Unna's views in ascribing to them no role whatever in the composition of the scutulum. Likewise the assumption of leucocytes and exudations being present in the interior of the scutula, as asserted by Weyl (Ziemssen and Woelsch*), is by no means justified.

In quite young normal scutula one often finds no trace of migration cells in the circumference of the encapsulating horny layers. It is, therefore, certain that they do not belong to the typical configuration of the scutulum. Experiments performed by Unna on animals have shown that migration of the leucocytes takes place chiefly under two conditions alone in favus. The first of these is the primary infection of the skin, when the fungus spreads in an irregularly concentric direction the in cornefied layer without forming scutula, and is for the greater part again eliminated in the shape of

*Woelsch, *Arch. f. Derm. u. Syph.*, xxxi., Bd., 1 Heft, 1895, page 56.

favus crusts containing leucocytes. If, meanwhile, the fungus has obtained a footing in certain parts of the epidermis, preferably in the orifices of the hair follicles, there then commences the second period of unimpeded scutular growth, in which no migration of white blood corpuscles is observed. This latter again occurs only when, be it spontaneously, or in consequence of the application of medicaments, an abnormal condition of the irritation of the scutulum-bearing skin is produced. By these dermatides occurring at irregular intervals, walls of leucocytes are erected around the scutula and form in connection with the horny cells various crusts by which the scutula are lifted up and partially cast off. By this process, however, a cure is generally not effected, and under the leucocytic crusts new scutula are formed unimpeded by the pus corpuscles, so that frequently one can observe both in animals and in man scutula superimposed in layers one over another, and separated by crusts. This condition I have observed in the coarse favus masses of my second case, while the more recent scutula of the first case exhibit only here and there, and not even to any great extent or with regularity, an environment of leucocytes. In my second case a further cause of secondary leucocytosis is to be found in the accumulation of numerous organisms in the dissolving scutula, a point which I must immediately enter into more fully.

The histological conditions in man would thus, according to my experience, accurately coincide with the facts experimentally ascertained in animals by Unna, with the only difference that these latter are much more precise and conclusive, for the student will far less easily have an opportunity of examining on the human body scutula which have until then been utterly uninfluenced by medicaments and other artificial means of irritation. This, indeed, must be rigidly excluded if one is desirous of forming a correct opinion on the occurrence of leucocytes in the scutulum.

Accordingly I can condense my opinions on this subject to the simple statement, that under normal conditions and during its uninfluenced growth, the scutulum attracts no leucocytes, but that these latter are very often attracted in consequence of external influences causing the death and elimination of the scutulum, and that the pus corpuscles are as a rule only found in the shape of leucocytic crusts, very rarely as true suppuration, and further that *even in these*

latter cases the leucocytes do not penetrate into the interior of the scutulum.

Finally, we may ask ourselves whether true organisms growing in the scutula can be found under normal conditions. On reading the complicated precautions employed by Kral and by Pick, considered indispensible for obtaining pure cultures of favus, one might readily be induced to believe that every scutulum swarmed with various organisms, so that a master's hand in bacteriological science was necessary to procure a pure culture from a scutulum. In point of fact, however, every fresh and intact scutulum without an environment of crusts, will immediately yield a pure culture when manipulated with clean instruments. I am even disposed to consider it wrong to uphold the notion that it is at all a complicated or difficult matter to obtain pure cultures of favus (or of trichophyton); the scientific knowledge of the general practitioner will undoubtedly be increased when he knows how easy it really is for every beginner to make pure cultures of these cutaneous fungi.

The fresh scutula which I examined did not anywhere contain a second organism. With older favus masses this was different, as these chiefly consisted of scutula in process of dissolution, permeated and surrounded by crusts and scales. Here I found almost in all the scutula, the greater portion of which be it observed were defunct, secondary organisms to the number of at least three different species in this one case.

1. *A Strepto-Bacillus.*—This micro-organism occupies in several scutula, principally the central portions, forming plots along the fissures. From these colonies extend in all directions in intricately convoluted chains throughout the decaying favus. By its linked shape this bacillus reminds one of the strepto-bacillus of the soft chancre, first described by Unna, but it differs from it (1) by having much smaller dimensions (length about 1 u, breadth $\frac{1}{4}$—$\frac{1}{3}$ u); (2) by its rounded and sometimes even tapering ends (whereas the strepto-bacillus of soft chancre exhibits abrupt edges); and (3) by not forming multiple chains, as this latter does. It rather inclines to radiate in all directions, forming interwoven, net-like accumulations.

2. *A Coccus*, which forms cloud-like colonies between the decaying hyphæ. These cocci have a diameter of $\frac{1}{4}$—$\frac{1}{2}$ u, and are generally collected together in dense, round masses,

presenting a uniform consistency and probably cohering by means of a coccus mucus.

3. A Third, Peculiar Organism appears to be present in the homogeneous round masses and lumps, staining darkly with methylene-blue and interspersed in streaks through the decaying scutula. At a high magnitude vegetable mucus of a pale violet color and similar to leuconostoc mucus may be observed, contrasting plainly with the blue hyphæ of favus, in spite of both intersecting one another with their net-work. It is impossible to demonstrate central mycelia in the mucus, but the latter may be shown to consist of spheroid segments, which no doubt represent the cells of the hyphæ.

Although we must decidedly reject the opinion of those authors (Neumann, Weyl, Cornil and Ranvier*) who believe in the existence of secondary micro-organisms in every scutulum, on the other hand we cannot but acknowledge the saprophytosis of various fungi to be a concomitant feature of the decay of the scutula, and occurring chiefly in such parts where the protecting horny covering of the latter has been destroyed.

In collecting the results of my researches, thus fragmentarily discussed hitherto, I believe the assertion justified that the scutulum of favus is purely a fungous body, as stated by Kuchenmeister, Unna, and (as it appears) also by Lesser. We have seen that the stratum corneum forms but the exterior capsule of the scutulum, and does not penetrate into it, and that those masses difficult to stain, and almost always found in the periphery of the scutula and seen advancing further towards the center in the older specimens, consist of defunct mycelia and not of epithelium, exudation elements, epithelial detritus, pus corpuscles or foreign micro-organisms.

The facts here recorded likewise supply us with sufficient data for the solution of the second problem I have set out to solve, viz.:

In what manner does the favus fungus grow in the scutulum?

As each one of the larger scutula presents in its periphery a zone of dead hyphæ interspersed with but a few living mycelial threads, which serve as a connecting link with the living epithelium, it cannot for a moment be supposed that the scutulum grows by sending out fresh mycelium from the periphery (Waloch). On the contrary, we have seen that the

*Cornil et Ranvier, "Manuel d'histologie pathologique," 1869, p 1218.

larger and older the scutulum becomes, its living portion is reduced more and more to the central zone. Eventually it is only this center, consisting of hyphæ and spores, that stains with the ordinary alkaline agents. It is therefore evident that an enlargement of the whole scutulnm is only brought about by the radiating arrangement of the mycelia increasing in length towards the interior of the scutulum, in consequence of which the horny layer is pushed apart in all directions. At the same time new spores are continually produced by constriction in the radially-placed mycelia (seed-hyphæ of botanists) in a peripheral direction, as is the rule with oidium fungi, while slowly dying away at the exterior. Such a manner of growth can only be denominated *centripetal* (Unna), and he in this manner shows at once perfectly and sufficiently the peculiarities of the scutulum. As Unna already pointed out (*vide supra*), this centripetal growth and the demarcation from the environs gives a special explanation of the comparative harmlessness, and the absence of continued irritation of the skin by which scutular favus is characterized (in contrast to the scaly, crusted, herpetiform variety).

Consequently, as regards this second question, I entirely share on the strength of my own examinations the opinion first advanced by Unna, to the effect that in the scutulum a special centripetal growth of favus is invoked. As such a mode of growth has hitherto not been observed in any other cutaneous fungi, I agree aslo with Unna (*vide* his Histopathology, page 382), that the scutulum must be acknowledged as a pathognomonic symptom of all favus fungi, which alone clearly distinguishes this group of fungi from the trichophytic species.

NOTES ON TETANUS.*

BY Q. C. SMITH, M.D., AUSTIN, TEXAS.

For convenience, we classify tetanus into four forms, though the manifestations of these forms are more or less similar.

1. Acute traumatic tetanus, occurring within twenty-four hours or less time after the occurrence of the causative traumatism.

2. Septic tetanus, as in puerperal cases, or from dissecting or other poisoned wounds.

3. Idiopathic tetanus; as a result of constitutional conditions, as exposure to extreme cold or heat, or irritation of the alimentary canal, or in persons enduring loud noises, as explosions, or cannonading, or blasting.

4. Tetanus neonatorum, which might be classed as a form of septic tetanus.

In all cases the exciting cause or conditions, as near as may be ascertained, should be promptly removed or counteracted, or as nearly so as possible.

If the causative traumatism be a puerperal or other closed wound, it should be—under general anesthesia—immediately made an open wound, by free incision, at least as deep as the original wound, and the parts carefully examined and all foreign bodies or substances removed, and the wound thoroughly washed with clean, very warm water, then closely covered with a thick pledget of absorbent cotton, and the cotton kept saturated with a soothing lotion, as paregoric and laudanum aa equal parts, then closely wrapped with oil silk and the wounded part kept immersed in clean water, warm as the patient can comfortably bear, the patient kept quietly in the horizontal position. The soothing lotion dressing should be renewed with fresh cotton every hour when patient is awake, and the warm water bath constantly continued until all tetanic symptoms have ceased. In all cases the bowels should be promptly moved freely by the least perturbating means. The patient should be kept as quiet and comfortable as possible, and well nourished, as the ultimate tendency of the disease is toward recovery, if the patient can withstand the depressing and disturbing effects of the cause of the attack.

*Read before Travis County Medical Society, June 2, 1898.

The internal remedies should be more or less varied to suit each case.

We are quite familiar with what is published in reference to the bacillary origin of tetanus and its serum antitoxin treatment, but have not used said mode of treatment in any of our own cases.

As internal prophylactic remedies for tetanus, or in such cases as its occurrence might be anticipated—after or simultaneously with aforesaid prompt free purgation—the patient should be quickly brought under the influence of quinine, and such influence constantly maintained and also such other constitutional remedies administered as may be indicated, as quieting nervines, cardiac tonics, etc., but opiates should not be administered to tetanus patients.

If tetanic spasms are threatening, or already occurring, when the physician is first called, strychnia, one-fiftieth to one-twentieth gr.—adult doses—should be administered hypodermically, and dose repeated every one or two hours in such quantity as the severity of the spasmodic action would indicate; the spasms or spasmodic tendency will gradually cease, as the system comes under the influence of the strychnia, provided the patient is not already too far exhausted by the depressing causative influences or by the exhaustive influences of the spasms. The strychnine influence should be maintained until spasms do not threaten to recur, when the strychnine is withheld a few hours. Other remedies in many cases can be advantageously combined with the hypodermics of strychnia, as digitalin, atropia or quinine, but never morphia.

Convalescence may be made more comfortable and complete recovery hastened by the administration—preferably by the mouth—of such restorative remedies as may be indicated in each case.

Mild galvanic currents, mobile, in long seances, are often effective to relieve muscular soreness and stiffness, quiet nervousness and bring sleep.

Tetanus neonatorum is rarely cured, but can be quite surely prevented by proper dressing and care of the cord. We have never had a case of trismus nascentium to occur under our personal care and management during a general and obstetric practice of over thirty years, while cases were occurring, from time to time, in the same communities where and when we were practicing.

We believe that tetanus in all its forms, in the great majority of cases, can be prevented or cured by proper prophylactic or curative treatment.

617 Colorado street.

EPIDEMIC OF SMALLPOX IN JACKSON COUNTY, KY—Smallpox was brought into this county by a negro woman early in July and gained a firm hold before the State medical health officers had their attention called to it. Dr. Smock, inspector for the State Board of Health, thoroughly investigated the epidemic. He found more than a hundred cases, and so reported to the board. Dr. J. M. Matthews, the president, and that veteran fighter of all things unsanitary and unethical, Dr. J. N. McCormack, the secretary, promptly took the matter in hand and quarantined the whole county. The State is to be congratulated on having such men on its board. Kentucky has physicians who look sharply after the bodily welfare of her citizens even if her judiciary does permit the osteopaths to "pull their legs."

HOMEOPATHY IN BAVARIA.—At a recent meeting of the financial committee of the Bavarian Parliament, Herr Landmann proposed that a university chair of homeopathy should be established in the University of Munich. The minister replied that the university, to which the question had been referred, had replied that the need of such a chair was not felt, inasmuch as homeopathy was not a science. A similar incident, which ended in like manner, occurred not long ago in the Wurtemburg Landtag.—British Medical Journal, April 9.

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EDITORIAL.

A HIGHER STANDARD.

The Medical Department of the University of Nashville will open with its preliminary course on Monday, September 5. The regular course will begin October 1. Probably never before in the history of the school have there been so many applications for catalogues or so many warm and congratulatory letters about its success. The register already contains many names.

Last year the institution had a class that gave a magnificent account of itself before the State Boards, thus upholding the reputation for thoroughness of teaching that the school has always enjoyed. The aim of the University is to turn out the *best*, and hence she constantly encourages her students to gain a good preliminary education. The Southern and Northern medical college associations have a fixed standard for entrance to

the various institutions of which they are composed. It is to be regretted that some of the schools holding membership in these societies do not strictly adhere to these requirements, but seek means of evading the spirit of the law though they may conform to its letter. This may account for the failures the State Boards have been obliged to record. Bidding for students and sending out agents (drummers), a practice too often adopted, also tends to bring to the medical schools adopting such practices a poor class of students, and no doubt they are factors in the poor showing of some schools. The college associations are doing a good work, but unfortunately they have no power by which they can enforce their rules. To the State Boards we must look for that higher standard that the public are demanding at the hands of the medical teachers of this country. It would seem as though professional pride alone would be sufficient to correct the evils mentioned, but the commercial spirit existing so largely in many (very many) of our medical schools overrides *professional pride* (if it exists at all in these stray places), and hence the work of the Medical Boards is made onerous.

We have had occasion before to speak in laudatory terms of the State Board of Tennessee and the good it has done for the science of medicine in this State. State Boards are however but the representatives of the people and only do the will of the public in weeding out those weaklings resulting from a defective method of medical teaching. We wish all State Boards the support they should have. They exist because the public want them. The colleges must raise their standards and teach medicine thoroughly. They are not in a position to say, "The public be d——d."

THE BEHRING PATENT.

The Nashville Academy of Medicine at its regular meeting, Thursday, September 1, 1898, directed its secretary to draw up the protest which we append below against the

action of the patent office in granting letters patent to Emil Behring for the manufacture of diphtheria antitoxin.

"The United States Patent Office having granted to Emil Behring letters patent for the exclusive manufacture of diphtheria antitoxin, the NASHVILLE ACADEMY OF MEDICINE declares that this grant is not warranted by Professor Behring's connection with the discovery of this product, his share in the discovery thereof not being greater than that of several other investigators.

"Diphtheria antitoxin has been manufactured in the United States by various firms and also by State Boards of Health for some years without hindrance or attempt at restraint. The product manufactured under the name of Behring has been proven inferior to the serums of American producers, and if the stimulus of competition be removed by the establishment of a monopoly the tendency will be rather toward a eterioration of the product than toward its improvement.

"The ACADEMY therefore protests that the granting of letters patent in this case is detrimental to the best interests of science, the medical profession, and the thousands of sufferers from diphtheria; and that, as a matter of common justice, the grant of patent rights should be revoked.

"The ACADEMY further directs that this protest shall be furnished to the medical journals of this city for publication."

Every scientific body in the land should, in our humble opinion, take a similar action. We do not believe that the medical profession realize the immense influence which their united action possesses over public opinion, otherwise needed legislation and the restriction of many abuses would not be so slow in coming.

The action of Professor Behring in persistently seeking a patent grant in the face of several refusals is a demonstration of a commercial spirit which should be substantially rebuked by united action on the part of the profession to prevent the monopoly he seeks to establish.

The reports of the Examining Boards of Tennessee, Mississippi and North Carolina as printed in the BULLETIN last month are such object lessons of the teaching imparted by the Medical Department of the University of Nashville that we reproduce them below:

TENNESSEE.

COLLEGES.	No. Examined.	No. Passed.	No. Rejected.	Highest per cent.	Lowest per cent.
University of Nashville	21	20	1	91	65
Vanderbilt University	12	10	2	89	50
University of Tennessee	5	4	1	95	40
Tennessee Medical College	5	5		85	75
Meharry Medical College	2	1	1	75	71
Memphis Hospital Med. Col	8	7	1	88	71
Chattanooga Medical College	4	3	1	89	50
University of Louisville	5	5		85	75
Louisville Medical College	1		1		65
Hospital Medical College	2	1	1	80	62
Kentucky School of Medicine	1	1		75	
Jefferson Medical College	1	1		75	
University of Pennsylvania	3	3		96½	75
Bellevue Hospital Med. Col.	1	1		80	
Baltimore College of P. and S.	1	1		78	
Baltimore Medical College	2	2		78	77
Southern Medical College	2	2		85	78
Tulane University	1	1		75	
University of Virginia	1	1		90	
University of Michigan	3	3		89	79
Missouri Medical College	1	1		92	
Milwaukee Medical College	1	1		59	
University of Kansas City	1	1		85	
Non-graduates	13	6	7	88	34
Total	97	81	16		

MISSISSIPPI.

SCHOOL.	Applied.	Passed.	Rejected.
University of Nashville	5	4	1
Vanderbilt University	3	1	2
Memphis Hospital Medical College	44	29	15
Tulane University	30	20	10
Louisville Medical College	9	1	8
New Orleans Medical College	5	2	3
Atlanta Medical College	1	1	
University of the South	2	2	
Barnes Medical College	3	1	2
Meharry Medical College	2		2
Ohio Medical College	1	1	
St. Louis Medical College	1		1
Rush Medical College	2	1	1
Illinois Medical College	1	1	
Kentucky School of Medicine	1	1	
University of Missouri	1		1
Bellevue	1	1	

NORTH CAROLINA.

College.	Applied	Passed	Rej'ct'd
University of Nashville	3	3	.....
Vanderbilt University	7	3	4
Faculty of Paris (France)	1	1	.....
University of Virginia	1	1	.....
University of New York	1	1	.....
University of Louisville	1	1	.....
Louisville Medical College	6	4	2
Kentucky School of Medicine	2	1	1
University of Pennsylvania	2	2	.....
P. and S., Boston	1	1	.....
Illinois Medical College	1	1	.....
Long Island Medical College	1	1	.....
P. and S., Baltimore	2	1	1
Baltimore Medical College	11	10	1
University of Maryland	6	6	.....
Medical College of Virginia	4	4	.....
University College of Richmond	1	.....	1
Tulane University	1	1	.....
Leonard Medical College	5	5	.....
North Carolina Medical College	2	.....	2
University of Georgia	1	.....	1
Undergraduates	22	16	6
Total	82	63	19

Personal—Dr. E. G. Wood, the newly elected professor of Practice of Medicine in the Medical Department, University of Nashville, has removed from Canada to Nashville and will enter practice at once, in addition to his teaching work.

McGill University, Montreal.—An additional chair of chemistry has been founded and endowed in this university by Mr. W. C. McDonald, who recently erected a new chemical building at a cost of $240,000. This same donor has provided an additional endowment of $50,000 for the faculty of law, to the deanship of which faculty, with the chair of Roman law, Mr. F. P. Walton, of the Scotch bar, was recently appointed. Mr. McDonald has, moreover, supplemented the existing endowments associated with his name by a further gift of $200,000 to provide for any deficiency in income that may result from the fall in the rate of interest in investments. —New York Medical Journal.

SECTION ON MEDICINE.

UNDER CHARGE OF W. L. NICHOL, M.D.,

PROFESSOR OF DISEASES OF THE CHEST, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; AND

E. G. WOOD, A.M., M.D.,

PROFESSOR OF PRACTICE OF MEDICINE AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

HOW TO MAKE KUMYSS.

The Dietetic and Hygienic Gazette for August says:

The value of kumyss as a nutrient and stimulating beverage in cases of general debility, malnutrition, and wasting diseases is well established. The original form of this beverage, as made in Tartary by the fermentation of mare's milk, is, of course, seldom available, and is by no means necessary. A very good and useful kumyss may readily be prepared as follows:

Fill a quart champagne bottle to the neck with pure cow's milk; add two tablespoonfuls of white sugar, first dissolving it in a little water by aid of heat; add also a quarter of a two-cent cake of compressed yeast. Then securely fasten the cork in the bottle and shake the mixture well; place it in a room having a temperature of from 70° to 80° F. for six hours, and finally in the ice box for about twelve hours. It is then ready for use and may be taken in quantities varying with the requirements of the stomach and general condition of the patient. In preparing the kumyss it is well to make sure that the milk is pure, that the bottle is sound, and that the yeast is fresh. The bottle should be opened with great care, on account of the effervescent properties of the mixture, and the latter should be discarded and not drunk at all if there is any curdle or thickened masses resembling cheese, as these indicaie that the fermentation has been prolonged beyond the proper time. It should be prepared as required for use. The virtue of kumyss resides in the fact that it nourishes, refreshes, and stimulates, with no subsequent reaction from its effects. Kumyss contains some alcohol, with fat,

casein, lactic acid, and carbonic-acid gas. The cost is about fifteen cents per quart, including the bottle.

REST IN GASTRO-INTESTINAL DISEASES.

Spivak (Journal of Am. Med. Asso.) reaches these conclusions concerning the rest treatment:

1. It is indicated in all dyspepsias, the underlying cause of which is a deranged nervous system.
2. It is indicated in all cases where abdominal pain is present.
3. In all cases of acute and chronic diarrhea.
4. In hemorrhage from the stomach or intestines.
5. In all cases of moveable or floating kidney.
6. In all tubercular cases suffering from disturbed digestion, be it stomach or intestine, and especially those that have a vacillating temperature record, and as there are but few cases of tuberculosis that do not suffer from some form of gastro-intestinal disorders, the rest cure is indicated in 50 per cent. of all cases of tuberculosis. Not only are they relieved from their annoying digestive symptoms, bnt their general condition markedly improves.
7. I have yet to learn of a disease of the gastro-intestinal tract where the rest treatment is contradicted.

SECTION ON THERAPEUTICS.

UNDER CHARGE OF W. G. EWING, M.D.,

PROFESSOR OF THERAPEUTICS AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

THE ADMINISTRATION OF CHLOROFORM, WITH SPECIAL REFERENCE TO AN ADMIXTURE OF ETHER.

The dangers attending the induction of chloroform anesthesia are due, in part at least, to the physiologic action of the drug upon the capillaries. The emptying of the latter leads to plethora of the larger blood-vessels, especially the veins, and consequent tendency to stasis, which finally reaches its depth in chloroform-syncope. In this condition of approaching stasis the brain and bulb are not only deprived of an adequate blood-supply owing to the inadequate

action of the heart, but the blood that reaches this viscus is itself more or less laden with chloroform-vapor, and it thus accentuates the inhibitory effects of the drug upon the centers of respiration and upon the vosomotor system. To counteract these effects, Burton advises the addition of a small amount of ether, having found experimentally that a mixture of ether and chloroform, in the proportion of 1 to 17, is sufficiently strong to answer the purpose, and has given satisfactory results. The ether causes and maintains dilatation of the arteries and capillaries, thus securing the needful blood supply for the nerve centers and immunity from the central plethora produced by the effect of chloroform on the vasomotor centers. The ether causes also deeper breathing throughout the entire period of anesthesia, more powerful heart contractions, and a more rapid passing off of the narcotics on withdrawal of the anesthesia. The most successful treatment, when death from chloroform is threatened, is immediate inversion, the tongue being drawn forward at the same time. In Burton's experience this method has never failed when it has been instituted in time. As adjuvants he employs hypodermic injections of ether and strychnin, applies heat to the trunk and the extremities; and when the heart's action has improved he uses artificial respiration.—William E. Burton in the Lancet; Philadelphia Med. Jour.

FORMULÆ.

PRURITUS OF THE VULVA.—In cases that are not parasitic, says the Independence medicale, M. Mussy advises the following applications:

℞ Finely powd. starch, gr. 300.
Bismuth subnit.,
Potass. brom., aa gr. 15.
Calomel, gr. 8.
Powd. belladon., gr. 3.

M. To be applied twice a day. It is said to give almost instant relief.

IRRITABLE BLADDER—

℞ Acid benzoici, grms. 4.
Borax, grms. 4.5.
Aq., grm. 120.

M. Sig. Three large teaspoonfuls a day. (Relieves frequent desire to urinate.

CHRONIC GASTRITIS—

℞ Infus. rhei., ℥ ss.
Tinct. gentian., *m* xxx.
Sod. bicarb., gr. x.
Spir. chloroformi, *m* x.
Aq. menth. pip., ad ℥ j

M. Sig. To be taken before meals. (Chronic form with flatulence.)—Carpenter.

SECTION ON SURGERY.

UNDER CHARGE OF CHARLES BROWER, M.D.,

PROFESSOR OF SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

A BRACE FOR CERVICAL SPONDYLITIS.

In Chicago Medical Recorder for July, 1898, Dr. Wallace Blanchard says: "The brace which I have the honor to offer you for your inspection is presented as embodying certain therapeutic requirements in the treatment of cervical spondylitis. If it be admitted of this, as perhaps it might be admitted of all other distinctive tubercular diseases of movable articulations, that it is friction that grinds down the inflamed osseous structure into detritus and destroys reparative tissue more rapidly than it can be produced, then it necessarily follows that the rational treatment must be that which relieves both movement and pressure, the two factors of friction, to the best possible advantage.

To relieve pressure on the cervical vertebral bodies to the best advantage, it is undoubtedly necessary to carry the head backward so as to make the spinous processes divide with any apparatus that may be used, the superincumbent weight of the head, and for purposes of treatment at least the first seven dorsal vertebra must be classed with the cervical.

This brace is built with the following objects in view: to as nearly as possible immobilize the head and neck; to transfer as far as may be possible the weight of the head directly to the pelvic portion of the body; to carry the head backward so as to impose upon the spinous processes all of the weight that may not be taken by the brace, and to protect the diseased bodies from jar or concussion.

The brace is made by supporting a large pad, shaped into an occipital socket, in which the head when held by a strap passing around over the forehead will rest immovable. This occipital pad rests on an arch formed by the joining of two steel straps passed down over the posterior face of a leather shell-back brace, and these are there secured in such a manner as to be raised or lowered to any desired position and there held by set screws.

The accuracy with which the leather shell-back brace fits every outline of the body, makes it a nearly immovable foundation. In applying the brace the leather shell-back should be securely laced and strapped to the body, and the occipital pad should then be in a position so far posterior to and above a level with the occiput that considerable force shall be required in lifting and carrying backward the head so as to place the occiput on the pad, and with the chin somewhat elevated; then buckle the strap over the forehead.

With the several chin-supporting braces in use the head is thrown backward and upward every time the patient opens his mouth in the acts of mastication and speaking, while few of these apparatus impede in any manner whatever lateral volation.

The Sayre jury-mast has no retarding effect whatever on rotation, neither does it make any attempt to carry the head backward so as to transfer a portion of the weight to the transverse processes. The wearing of each of these forms of apparatus that depend on chin straps or chin pads are frequently seen to result in flattening jaws, giving a fish-mouth appearance to the patient's face, and even more frequently they are seen to interfere with dentition.

The brace not only obviates these distressing disadvantages, but the patient may also be able—with cap and coat—to walk the streets without attracting attention to the fact that he is wearing any sort of mechanical appliance.

In all cases in my charge wearing this brace it is never removed, night or day, except for bathing and change of underwear.

I have used the brace for quite a number of years with what I believe to be very marked success, and the cases, though my records are not quite complete, are upwards of a hundred, besides quite a number of surgeons of the Northwest have followed my lead for a number of years in the same plan of treatment.

SECTION ON ABDOMINAL SURGERY AND DISEASES OF WOMEN.

UNDER CHARGE OF M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

SURGICAL TREATMENT OF PERITONITIS.

We give below a summary of an article under the above head by Von Winkel (translated by Berry in New Eng. Med. Monthly):

The surgical treatment of general peritonitis, the outcome of pelvic disease in the female, is deserving of greater popularity than it has heretofore enjoyed.

It is only in certain forms of the disease, namely, the tubercular and perforative varieties, that the indications for such treatment are definite and obligatory.

Tubercular peritonitis in all its forms, serous, sero-purulent and dry, is curable by laparatomy, but should be defined as cured only when no relapse occurs during a period of five years. The factors in the cure are: evacuation of the exudate, relief of the congested condition of the peritoneum, unloading of the bowels and improvement of the circulation and respiration. Debated points are whether the action of light, air and various chemical agents is to be considered curative; whether irrigation should follow the evacuation of the exudate, and whether a medicated solution or sterilized hot water is the most efficacious. The resection of pelvic organs is indicated only when the disease is circumscribed and limited to parts which are easily detached. Drainage may be dispensed with. The vaginal operation is not adapted for this form of the disease.

Post-operative, diffuse peritonitis necessitates the partial reopening of the original wound and a careful removal of the pus. Irrigation should be omitted. Drainage, however, is indispensable, either through the incision, or when pus is deep in the pelvis, through Douglas' cul-de-sac.

Puerperal diffuse peritonitis calls for section as soon as the exudation is apparent, provided the pleura and pericardium are unaffected. For the most rapid and complete evacuation

of the pus abdominal section is advised, and when the exudation tends to extend into the lower pelvis vaginal section is the proper supplementary procedure. The abdominal incision must be long. Most authors recommend subsequent irrigation. Drainage is indispensable.

Gonorrheal peritonitis in itself does not demand an abdominal section, as it does not produce a very free exudate or very alarming symptoms. In the case of large unilateral or bilateral pus sacs, coeliotomy is indicated for their removal, and the avoidance of a perforative peritonitis.

In the perforative variety, from rupture of tubal or ovarian abscesses, whether of gonorrheal or other origin, dermoid cysts, tubal pregnancies, etc., abdominal section is the only resource. The ruptured or infected organs are to be removed, and the peritoneal toilet most carefully made. Drainage is necessary in the presence of remnants of infected tissue in the pelvis. Otherwise the incision may be completely closed with a buried suture, when the subsequent treatment is the same as in ovariotomy.

PERITONEAL IRRIGATION AND DRAINAGE.

Cordier (Annals of Gynecology and Pediatry) sums up his argument as follows:

Drainage is a life-saving process when used properly.

To use it is not an admission on the part of the surgeon that his work during the operation was imperfect.

The use of the tube alone does not produce or leave any condition that favors the development of hernia.

The omentum or other structures do not become entangled in the openings of the tube.

A small size flint-glass tube with small openings and open ends should always be selected for pelvic drainage.

The tube does not produce fecal fistulae.

The tube should be used when in doubt as to the absence or presence of drainage indications.

To depend upon the microscopic findings as to whether a given case should or should not be drained is seemingly scientific, but is neither necessary nor practicable.

Gauze drains should rarely be used, and should always be supplemented by a glass drain.

There is no danger of infecting the patient through the tube if the attendant is properly instructed.

Where irrigation is indicated drainage should be used.

Many cases will require drainage where irrigation was not indicated.

The emptying of the tube and the time of its removal must be governed by the indications and progress of individual cases.

Irrigation with a normal saline solution cleanses more quickly and effectively than the most thorough sponging.

The irrigating fluid should not be too hot to be comfortably borne by the operator's hands.

HERNIA IN CHILDREN.

Abstract of a paper by Charles I. Hamilton, M.D., in Columbus Medical Journal.

Causes: 1. Heredity. 2. Elongated mesentery. 3. Straining, as in constipation, coughing, etc. 4. Wasting diseases. 5. Binders when applied too tight.

Varieties: 1. Inguinal. 2. Umbilical. 3. Femoral.

Umbilical is not common and femoral is rare.

Diagnosis: Inguinal alone offers difficulty. It must be borne in mind in differentiating between this condition and Hydrocele that both must be equally translucent. In case of doubt an incision is safer than an exploring needle.

Treatment: Umbilical tends to close itself. Nature may be assisted in her efforts by fastening over the opening by means of a strip of adhesive plaster, a pad made by covering a large thick button with chamois leather.

Inguinal—Apply some form of truss that will press evenly and keep the hernia from coming down. It must be worn day and night for at least a year.

Femoral—This variety cannot be controlled by a truss and demands operation.

These modes of treatment are successful in a large proportion of cases, but about 30 per cent. are not relieved. Operation should be done upon all cases if patient is over four years old, in which 1, the external ring is large and its pillars weak; 2, if truss has failed; 3, if the hernia has become strangulated (this is soon in children). For success primary union without drainage is essential.

SECTION ON OBSTETRICS.

UNDER CHARGE OF S. S. CROCKETT, M.D.,

PROFESSOR OF OBSTETRICS, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

CESAREAN SECTION.

Reynolds (Am. Jour. of Obstet., June) considers Cesarean section justified in all cases where a mechanical obstacle renders delivery, in an otherwise healthy woman, more than ordinarily difficult and dangerous. His experience covers twelve years service in a clinic which delivers 2,500 women every year. He believes that symphyseotomy should be restricted to the class of cases from which he would exclude performance of Cesarean section, i. e., cases of moderately contracted pelvis in women not previously healthy, or in women exhausted by long labor. His conclusions are:

1. That in women who are the subjects of visceral disease or other previous ill health, and in women who are exhausted by long labor, the maternal mortality of the Cesarean section is too great to allow of its performance in the interest of the child alone.

2. That in primiparae with moderate contraction the decision whether or not the Cesarean section should be performed as an alternative operation at the beginning of labor in preference to an attempt at an intrapelvic delivery, is a decision which is intrinsically so difficult that it should be attempted by none but the most experienced obstetricians.

3. That in most cases of moderate contraction in primiparae it is best to wait until the progress of labor teaches us which is to be the safer operation in the given case.

4. That when any healthy woman has lost one child by a difficult operative labor in the hands of an expert she should in the next labor be prepared for Cesarean section and delivered by it, unless the course of labor shows that from some changed condition, e. g., a small child or a more favorable position, a forceps delivery is likely to be easy.

5. That when any case occurs in the practice of the comparatively few men who are really experienced in both obstetric and abdominal surgery, in which an attempted forceps operation proves to be exceptionably difficult and version

promises no better results, the forceps operation should be suspended, and if the fetal heart is undisturbed, should be abandoned in favor of the Cesarean delivery.

6. That in very small pelves, e. g., those under three and one-fourth inches in the conjugate, the Cesarean section in favorable circumstances is the operation of preference.

DOUBLE UTERUS.

F. D. Kendall (Va. Med. Semi-Monthly, May 27, 1898) reports a case of double uterus, in which both sides were functional. The condition was discovered at the time of a gynecologic examination for some minor disorder. When two sounds were introduced, one pointed toward the right and the other toward the left side. Several months later the patient gave birth to a girl weighing 10½ pounds from the left division of the uterus, and about 1½ years later she was delivered of a 9-pound boy from the right division, in each case without difficulty.

SECTION ON MEDICAL CHEMISTRY.

UNDER CHARGE OF J. M. KING, B.S., M.D.,

PROFESSOR OF CHEMISTRY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; CHEMIST TO STATE OF TENNESSEE.

ALBUMINURIA IN LIFE INSURANCE.

B. Symonds (American Journal of the Medical Sciences, April, 1898) holds that under albuminuria no proteids except serum albumen and serum globulin should be considered; that while the proportions of the two substances vary, they are always found associated. The amount may vary from a trace to 2 per cent., and the quantity does not indicate the gravity of the case. When only a trace exists, there are many chances of error. The most common one being the reaction of the nucleo-proteid, which substance probably results from cell degeneration, and is often found in urine; also nucleo-albumin, formerly thought to be a mucinoid substance which is shed from the cells of the urinary tract.

The author knows of no test which is an infallible indicator of albumin. His method of testing is as follows:

Unless urine is distinctly acid, he adds two or three drops of acetic acid, in large test tubes, boil upper layer, and compare with lower layer against dark background. If there is no opacity of upper layer (slight opacity being detected if present), he is satisfied there is no albumin of clinical importance. If an opacity occurs, a few drops of nitric acid is added; if it does not disappear, there is certainly an albumin or nucleo-proteid. He uses Heller's test to differentiate these two; the test being more accurate and valuable if allowed to stand half an hour.

Clinically, cases of albuminuria he divides into temporary and permanent. The temporary or transient cases into organic and functional, which latter class frequently completely disappear.

These he classes as follows:

1. Cyclical variety in which albumin appears at certain times during the day, especially about noon, occurring in anaemic, dyspeptic and nervous cases.

2. Dietetic variety. While this variety is supposed to be caused by certain nitrogenous foods, the author has never seen a case.

3. Muscular variety, due to severe muscular exercise, occurs soon after excessive work and lasts usually a few days or weeks.

4. Adolescent albuminuria appears during period of development, especially in boys.

5. Albumin due to concentrated urine or in urine containing irritating substances, e. g. diabetic albuminuria.

6. Transient albuminuria resulting from acute febrile disturbances as colds, influenza. The author believes that every form of albumin is pathological and considers physiological albumin a misnomer. He believes, however, that any of the so-called physiological bases may disappear promptly, leaving the individual perfectly sound.

He believes there is no way of distinguishing mild from severe cases except by observation. The mild cases being finally evidenced by the continued absence of albumin from urine. The probabilities of the nature of a given case of albuminuria depends upon the following:

1. The longer albumin is present, the greater the probability of its organic origin.

2. Continuous presence of albumin is more serious than if it comes and goes.

3. Tube casts usually indicate organic trouble, though

some believe casts may occur in the functional albuminuria, especially the muscular variety. The recognition of different varieties of epithelial cells the author does not consider easy or definite.

4. Specific gravity below 1015 indicates renal insufficiency, which is more serious if urea excretion is below normal.

5. Hard pulse is unfavorable as it indicates arterio-capillary fibrosis, or the narrowing of the arterioles by presence of irritating excrementitious substances which have been retained.

6. Headache associated with albuminuria is looked upon with suspicion.

7. The younger the cases the more favorable; cases past forty years are suspicious.

8. Extremes of weight, high or low, associated with albuminuria are unfavorable.

9. Alcoholics in these cases, if taken beyond very moderate use, is prejudicial.

Attention is called to those cases in which the albumin is constantly present, yet no other indications of impaired health. He refers to the theory that it may be due to an old non-progressive lesion of the kidney, but even then he would not consider them good risks.

The matter of adjusting a premium to most cases with suspicious kidney symptoms would not be easy.—St. Louis Medical Gazette.

TRI-STATE MEDICAL SOCIETY.

The tenth annual meeting of the Tri-State Medical Society of Alabama, Georgia and Tennessee will be held at Birmingham, Ala., Tuesday, Wednesday and Thursday, October 25, 26 and 27, 1898. Dr. Frank Trester Smith, of Chattanooga, Tenn., is the secretary, and Dr. George S. Brown, Birmingham, Ala., is chairman of the committee of arrangements.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

PRELIMINARY PROGRAMME FOR THE MEETING AT NASHVILLE, OCTOBER 11–14, 1898.

B. Sherwood Dunn, Boston, Mass., Why I have Abandoned the General Practice of Vaginal Hysterectomy.

J. A. Stucky, Lexington, Ky., Tonsilitis or Quinsy, Causes and Treatment.

H. W. Whitaker, Columbus, O., Pichi.

A. Ravogli, Cincinnati, O., A Few Practical Points in the Treatment of Posterior Urethritis.

Frank Parsons Norbury, Jacksonville, Ill., The Neuro Hypothesis of Rheumatoid Arthritis.

A. M. Osness, Dayton, O., Diphtheria and its Logical Treatment.

F. E. Kelly, La Moille, Ill., Varicocele.

F. F. Bryan, Georgetown, Ky., A Plea for Pelvic Peritonitis and Cellulitis.

John M. Batten, Pittsburg, Pa., Syphilis.

George W. Johnson, Dunning, Ill., Gonangiectomy and Orchidectomy for Hypertrophied Prostate in Old Men.

George F. Keiper, Lafayette, Ind., Wounds of the Lachrymal Apparatus. Report of Operation for Restoration of Canaliculi Obliterated by Traumatism.

Shelby C. Carson, Greensboro, Ala., A Consideration of the Limit to Operative Gynecology.

W. H. Humiston, Cleveland, O., The Relations of the Gynecologist and the Neurologist.

W. Gaston McFadden, Shelbyville, Ind., Intermingling and Changing of Type in Diseases.

Wm. F. Barclay, Pittsburg, Pa., Mercury and its Action.

J. Rilus Eastman, Indianapolis, Ind., The Diagnosis of Gonorrhea in Women.

S. E. Milliken, Dallas, Tex., Sub-periosteal Removal of Caries from the Pelvic Basin, with the Report of Cases.

Thos. C. Martin, Cleveland, O., Complete Inspection of the Rectum by Means of Newer Mechanical Appliances.

George D. Kahlo, Indianapolis, Ind., Hydrotherapy in Stomach Diseases.

Alex. C. Wiener, Chicago, Ill., Surgical Treatment of Infantile Paralysis.

James M. M. Parrot, Kingston, N. C., Supra Pubic Cystotomy vs. Perineal Section.

R. C. Pratt, McKenzie, Tenn , Report of Cases in Obstetrics with Complications.

John L. Jelks, Memphis, Tenn., The Relationship between the Genito-urinary Tract and Rectum, with Special Reference to the Female.

T. Virgil Hubbard, Atlanta, Ga., How Should we Treat Typhoid Fever.

W. W. Taylor, Memphis, Tenn., A Clinical Contribution to Ectopic Gestation.

M. Goltman, Memphis, Tenn., Interesting Surgical Cases.

I. N. Love, St. Louis, Mo., The Bicycle from the Medical Standpoint.

Joseph Price, Philadelphia, Pa., Surgical Treatment of Pus in the Pelvis.

Andrew Timberman, Columbus, O., Operations on the Mastoid. When and How Performed.

R. A. Bate, Louisville, Ky., Arthritic Diathesis.

Charles W. Aitken, Flemmingsburg, Ky., Diagnostic and Therapeutic Uses of Tuberculin.

G. W. Halley, Kansas City, Mo., Some Pathological Conditions of the Ovaries and Adnexa Causing Pain.

BOOKS AND PAMPHLETS RECEIVED.

Da Costa's Surgery. Second Edition. Revised and enlarged. By John Chalmers DaCosta, M.D., Clinical Professor of Surgery, Jefferson Medical College, Philadelphia; Surgeon to Philadelphia Hospital, etc. Handsome octavo volume of 900 pages, 386 illustrations. Cloth $4 net; half Morocco $5 net. This volume is an ideal text-book for both student and practitioner, concise and comprehensive and covering the entire range of practical surgery.

Observations in Electro-therapy—G. P. Edwards, M.D.

Tonic and Spasmodic Intestinal Contractions, with Report of Cases—X. O. Werden, M.D.

The Evolution and Perfection of the Aseptic Surgical Technique—Lewis S. McMurtry, M.D.

The Evolution of the Aseptic Method in Surgery—Lawson Tait.

A Certain and Successful Method of Shortening the Round Ligaments—J. H. Kellogg, M.D.

Appendicitis Complicating Ovarian Cyst, and Simulating Torsion of the Pedicle, with three cases—X. O. Werden, M.D.

Improved Technique in Operations for Intraligamentous Cyst, with presentation of specimen—Rufus B. Hall, A.M., M.D.

Progress in Neurology—C. H. Hughes, M.D.

Medical Services and Medical Fees. The Business Side of the Practice of Medicine—C. H. Hughes, M.D.

The Sanitary Salvage of Our Soldiers in Cuba—C. H. Hughes, M.D.

Symposium on the Pathology of the Diseases of the Cardio-Vascular System. The Myocardium.—J. H. Musser, M.D., and J. D. Steele, M.D.

The Essential of the Art of Medicine—J. H. Musser, M.D.

The Diagnostic Importance of Fever in Late Syphilis—J. H. Musser, M.D.

Renal Calculus—J. H. Musser, M.D.

The Prevention of Diseases Now Preying Upon the Medical Profession—Leartus Conner, A.M., M.D.

The Antiquity of Syphilis, and Moses as a Health Officer—J. T. Jelks, M.D.

The Pathfinders—J. T. Jelks, M.D.

The Newer Preparations of Bismuth—Reynold W. Wilcox, M.D.

Recent Studies in Urinology—Heinrich Stern, Ph.D., M.D.

Twenty-third Annual Report of the City Health Officer of Nashville, Tenn.

Mastoid Inflammation, with a report of two interesting cases—T. E. Mitchell, M.D.

The Anatomy and Functions of the Muscles of the Hand and of the Extensor Tendons of the Thumb—Boylston Essay, 1897—J. F. Walsh, M.D.

Transactions of the 65th. annual session of the Medical Society of the State of Tennessee.

THE

MEDICAL AND SURGICAL BULLETIN,

OFFICIAL ORGAN,

Alumni Association, Medical Dept., University of Nashville.

NASHVILLE, TENN., OCTOBER, 1898.

OPENING EXERCISES OF THE FORTY-EIGHTH SESSION, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE—ADDRESS OF WELCOME.

BY W. G. EWING, PH.G., M.D., DEAN,

PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

It is my duty as Dean of the Faculty to announce the opening of the forty-eighth session of the Medical Department of the University of Nashville. We are about to enter upon one of the most important and sacred relations of life, that of instructors and pupils. In proportion to the manner in which our respective duties shall be discharged there will result from that relation great good to those who teach and to those who are taught. You have passed through the preliminary training of school and college, in which strict rules and close discipline marked clearly the pathway of study and endeavor. You are now about to undertake a larger and freer course of intellectual work in preparation for professional life.

There will hardly come to you in the future a more serious and solemn moment than this day upon which you dedicate your ability and energy to the study of the science of medicine. Successful work in professional schools must necessarily depend largely upon the zeal and character of the individual student.

There are not here, as in academic schools, the defined curriculum and watchful guidance of the teachers to direct and sustain, but the student has more liberty of choice and greater freedom of action. And yet this absence of restraint and lack of specific instruction is more than compensated by the consciousness of an enlarged responsibility, the feeling that the student is assuming the cares and duties of real life, and that his professional career may be largely determined by the use he shall make of his time, and the advantages offered for his instruction.

The University of Nashville has constructed and dedicated to the use of its Medical Department this magnificent building, new, commodious and thoroughly equipped for the purposes to which it was designed. On behalf of the Faculty, I pledge to you their highest endeavors, the exercise of unremitting care and watchfulness, and a sincere effort to devote to your welfare and instruction the best of their ability and experience.

The building which we occupy is of recent origin, but the Medical School is not new, it was not born yesterday. It will soon have completed a half century of existence, a long life compared with that of other such schools in this country.

In striking contrast with the decay of the physical body is the increased vitality of endowed educational institutions dedicated to purposes purely educational. The progress of years brings not weakness and decay, but vigor and capacity for higher and better work. The institution lives a life peculiarly its own, storing up, as time passes, a fund of wisdom and experience upon which its officers and instructors rely for their guidance in conducting its affairs. But to the student the price of such an institution is inestimable. In addition to the educational advantages is the morol stimulus to thought and action. He lives in the midst of memories and traditions of a past rendered illustrious by the labors of the great men of his profession. Their names recall to him lives spent in self-sacrificing devotion to the cause of scientific truth and progress; they are names indissolubly connected with the institution of which he is a member. He feels that he too an heir of the glorious heritage prepared and bequeathed b these worthy men.

Poor-spirited indeed must be the young man whose intel lectual pulse is not quickened by such associations.

The Medical Department of the University of Nashville in addition to its facilities for instruction, claims the advant

age of length of years in the field of medical research and education.

It was founded in the year 1850, with a Faculty; composed of William K. Bowling, John M. Watson, A. H. Buchanan, Charles K. Winston, Paul F. Eve, J. Berien Lindsley and Robert M. Porter, the late William T. Briggs being demonstrator of anatomy.

All these have departed this life, but the Medical School, its officers, instructors and students will ever preserve the memory of the men who originated the school, watched with zealous care its development and progress, and gave to its welfare their learning and ability.

In 1866 William T. Briggs and Joseph Jones became members of the Faculty; and in 1868 Thomas L. Maddin, William L. Nichol, John H. Callender, T. B. Buchanan and V. S. Lindsley were appointed to various chairs. In 1873 T. Menees was appointed to the Faculty, and in 1874 James M. Safford and T. A. Atchison were appointed, succeeding J. B. Lindsley and C. K. Winston. In 1875 T. B. Buchanan resigned and was succeeded by Thomas O. Summers, Jr.; the latter retired in 1883, and Charles S. Briggs and Orville H. Menees were appointed. In 1886 G. C. Savage succeeded Van S. Lindsley, who died the previous year. In 1890 William G. Ewing and Richard Douglas were appointed. In 1893 C. R. Atchison succeeded T. A. Atchison. In 1894, by reason of the death of William T. Briggs and the retirement of O. H. Manees, Sydney S. Crockett and Ambrose Morrison became members of the Faculty. In 1895, upon the resignation of Thomas Menees, Richard Douglas and G. C. Savage: John S. Cain, M. C. McGannon and L. B. Graddy were appointed. In 1896 J. M. Safford resigned and J. M. King was elected. In 1897, upon the retirement of C. S. Briggs and resignation of J. S. Cain: Larkin Smith, Charles Brower and A. B. Cooke were appointed. In 1898, by reason of the transfer of W. L. Nichol to the chair of Diseases of the Chest, and the retirement of C. R. Atrhison and Ambrose Morrison: E. G. Wood, and J. D. Jacobs became members of the Faculty.

This list shows that there have been in all thirty-five mem-ers of the Faculty from the beginning to the present time. the Faculty as at present constituted, one received medi- education at the University of Louisville, one at the Uni-rsity of Pennsylvania, two at the University of Toronto d nine at the University of Nashville. Our school has con-buted more than half a score of the professors and instruc-

tors in local medical colleges. In the members of its Faculty at different periods there have been three Presidents of the American Medical Association, a President of the American Surgical Association, a President of the American Medico-Psychological Association, a President of the Section on Surgery and a President of the Section on Physiology in the Ninth International Medical Congress, and numerous Presidents of the Medical Society of the State of Tennessee.

But the enumeration of its professors and the statement of the honors received by them give but a faint conception of the real merits of a medical school. It is easy enough for a number of gentlemen to meet together and resolve to form a medical school, but the creation of such an institution upon a secure basis, endowed with sufficient vitality to undergo the perilous process of resistance and development, requires a combination of rare qualities in those who undertake such a task.

That the founders of our Medical School had these qualities in a high degree is proven by the result. The success of the enterprise was quickly assured. At the date of its origin there were medical schools in Richmond, Charleston and New Orleans, its only competitors south of Louisville. It soon outstripped these rivals in popularity, and in its fifth year the members of its classes equalled those of the renowned schools of Philadelphia. The high reputation acquired in its first years of existence has continued undiminished. The foundations laid by the original Faculty were broad and deep, well fitted to sustain the noble superstructure of learning and science which grew and expanded to such magnificent proportions. The secret of their success was in adherence to the maxim, that "what is worth doing is worth doing well." They permitted no compromise with high purposes or with rigid persistence in the means adapted to attain excellence. They believed that one well educated student was of greater credit to the school than a dozen half instructed graduates. They naturally desired and welcomed accessions to the school in the number of matriculates from year to year, but such an increase of attendance was never sought by shortening the course of study or lowering the high standard of endeavor set up in the beginning. They felt and knew that the best recommendation for the institution was the thoroughness of the work done through systematic training in the theory and practice of medicine.

They all lived to see their labors crowned with success.

The Medical School of the University of Nashville took

position second to none in the United States, and year after year sent forth its graduates well equipped for the struggle of life. It has never been better able than at the present time to carry on the work for which it was founded nearly half a century ago. The building in which we are assembled was constructed especially for the Medical School and can safely challenge comparison with that of any other such institution for convenience of arrangement and adaptation to all of the wants of instructors and students. The catalogues show a most satisfactory and gratifying record as to numbers, and the examinations exhibit well directed and zealous efforts in the pursuit of knowledge. Although a member of the Faculty, I think I may be permitted, without any appearance of self laudation, to say for them that they enter upon this scholastic term with the sincere determination to leave nothing in their power undone to promote the best interest of the school and of those under their supervision and instruction. Of the graduates, too, the reports are most gratifying. During the last few years several of the states have established medical boards for the examination of applicants to practice. I have before me the official tabulated reports of the Examining Boards of the States of Tennessee, Mississippi and North Carolina.

In Tennessee there were examined twenty-one University of Nashville applicants and only one rejected; in Mississippi five applicants and one rejected; in North Carolina three applicants and none rejected. Taking into consideration the number of applicants among the graduates of the various schools represented in these tables and the per cent. of merit in the examinations, it will be seen that the graduates of the University of Nashville stand first.

Such a record is one of which any medical school might be proud. The gentlemen composing these examining boards are carefully selected, are of the highest professional character and strictly impartial in their decisions. The results of these examinations do not show that a diploma from our University has in it any peculiar virtue to insure success, but
y do mean that the work done in the Medical Department
horough and efficient; they speak well for both instruc-
s and students, and especially for the latter. Whatever
y be the ability and earnestness of professors, their labors
l be in vain unless their efforts find a generous respose
n those whose minds they seek to improve and strengthen.
n be truly said that heretofore the scholastic material in

this school has been of good quality, and there is every reason to believe that in the future it will increase in excellence.

Upon you, young gentlemen, will largely depend the future of this school; with you and your successors lies in a great measure the determination for good or evil in the fortunes of the institution of which you are to become members. It is for you to declare, by your manner of thought and conduct, whether it shall continue to preserve its grand reputation, or descend to a more commonplace level. Your presence here to-day is evidence, at least, that you have freely chosen your life-work, and, I believe, is a guaranty that you will continue in well doing.

In welcoming you to these halls I am not inviting you to a life of ease and self-indulgence. I have no ready-made formula to offer you for the quick and smooth acquisition of knowledge; I can point to no short-cut road to learning. I can only say to you what has been repeated from century to century, in all languages and upon an infinite variety of occasions, "Labor conquers all things." The expression is trite and commonplace enough, but carries a world of truth and stern reality.

Some one has said that genius is the capacity to receive and acquire the highest mental discipline; but such discipline does not come by absorption from others—it is the product of intense interest in the subject of thought and strenuous effort to attain the desired end. This genius, after all, is not a distinct and peculiar mental characteristic, but simply a larger and wider display of intellectual activity. The mind that eagerly seeks knowledge and cheerfully welcomes the discipline necessary to obtain it may not accomplish the grandest results, but is pursuing precisely the same mental path which conducts the genius to his loftiest achievements. There may be, and I hope there are, some among you who shall discover and illustrate great scientific truths; but I beg you to remember that the literature of medical science shows the grandest discoveries are not made in the light of sudden flashes of inspiration, but are the result of long-continued, intense and persistent mental effort.

This truth applies as well to those forms of intellectual endeavor whose outcome is more humble and immediately practical. Whether, then, it shall be your purpose and fortune to further wrest from nature her secrets and illuminate the dark spaces of medical science, or to pursue the more obscure, but not less useful and honorable course of a practic-

ing physician, permit me to sincerely caution you against too great reliance upon intuition or sudden inspiration as a source of any real power or efficiency. Such quick and seemingly disconnected suggestions are often useful in solving difficulties, but they are purely the effect of previous study and reflection, and, although the immediate point of association may not appear, they originate from the preceding mental process. It is labor at last that conquers all things. And yet labor may be so misdirected as to become worse than useless. It is the purpose of professional schools to teach the student how to work. The mass of learning incident to a profession is so large that the amount of actual knowledge acquired within the scholastic years must necessarily be small. If the merit of the school were to be determined by the quantity of information imparted, poor must be the judgment as to its efficiency.

To one entering upon the study of a profession it takes the form of an immense mass of confused and chaotic material, in the midst of which it seems but a hopeless groping to find a definite pathway. The assistance rendered by the professional school is the mental training and discipline which enable the student to find his way amid the seeming chaos. At the end of the course he may not take away a large amount of knowledge and technical information, but he is conscious of a distinct increase of mental force and confidence in his capacity for research and observation.

It is the intention of the Faculty, young gentlemen, to give you all of the assistance in their power in the prosecution of your studies; and, again, in welcoming you to the halls of the University, I express the wish of them all that your stay in the Medical School may be both pleasant and profitable to students and instructors.

APPENDICITIS: FROM A PHYSICIAN'S STANDPOINT.

BY E. G. WOOD, M.D., C.M.,

PROFESSOR OF PRACTICE OF MEDICINE AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF THE BRITISH MEDICAL ASSOCIATION, ETC., ETC.

Though Pepper and others recognized this disease as early as 1883, it was considered even by physicians to be rare and to include only the affections hitherto known as typhlitis and perityphlitis. Since Fitz published his admirable paper in 1886 the true nature and importance of appendicitis have been grasped by the profession, and it is now a pretty generally accepted fact that it embraces not only the so-called typhlitis and perityphlitis of bygone days, but also the then common disease, acute idiopathic peritonitis—a fact clearly established by the researches of various American and English physicians and surgeons.

Excluding cases of peritonitis due to traumatism, perforation of hollow viscera other than the appendix, rupture of abscesses other than appendiceal, rupture of tumors, etc., I believe that all cases of idiopathic peritonitis are due to appendicitis, and therefore that this disease is not more frequent than it formerly was, though the laity and even some medical men speak of it as a new disease. It is really an old disease under a new name, the tenor of which to the public is due to the fact that whereas under the old name it was treated medicinally, and many were allowed to die peacefully without mutilation; under the new name it falls into the hands of the surgeon and many useful lives are saved that would otherwise be sacrificed.

In no department of medicine and surgery has a more material advance been made during the past few years than in the true recognition and rational treatment of this disease; and while the surgeon naturally claims every case as his own, he must admit that so many cases naturally fall into the hands of the general practitioner and so many recover without the use of the knife, that the disease has a medical as well as a surgical aspect.

It would be a waste of time and space to discuss the question as to whether appendicitis is a medical or surgical affection. While I am not one of those who believe that every case of appendicitis should be operated on as soon as the diagnosis is made, still I realize that the practitioner should ever bear in mind that any individuul case, be it never so mild, may develop into one that will require surgical interference, and that every case demands the most careful and unremitting attention until the attack is clearly over. Unfortunately there are no symptoms or signs early in the case that will enable us to say that this case will recover without operation and that case will not. Were it so our course would be clear and we would be spared much anxiety.

A few remarks as to what occurs to me to be the duty of the family physician in the management of a case of appendicitis. He should be able to satisfy himself on the following points:

What is appendicitis?

What is the probable pathological condition present in the case under observation, and is it a suppurative or non-suppurative case?

What are the special indications for treatment, and what line should the physician follow?

First, what is appendicitis? It is an acute (sometimes chronic) inflammation of the vermiform appendix, which may be catarrhal or may be ulcerative. The catarrhal form is the type most commonly met with, is as a rule milder, runs a shorter course and recovers without suppuration, although it may lead up to ulceration, perforation, etc. It is liable to recur at longer or shorter intervals and may become chronic. In many cases it leads to obliteration of the organ with consequent cure of the disease.

In the ulcerative form the process is more intense, and sloughing of the appendix frequently occurs, either in a small limited area or *en masse*, the necrotic tissue presenting a dirty greenish or black color; even the entire appendix may separate in this manner. This sloughing, either with or without perforation, leads to the most intense suppurative peritonitis, localized into abscess if the process be slow enough for adhesions to take place; general throughout the peritoneal cavity in some cases, especially in those with sudden perforation before protective adhesions have formed. Though foreign bodies and faecal concretions in the appendix may set up the disease, the severe types leading to ulcer-

ation and sloughing are due to the action of micro-organisms and of these the bacillus coli communis is the one most frequently found. The streptococcus pyogenes and the staphylococcus pyogenes aureus are sometimes present.

2. What is the probable pathological condition existing, and is the case a suppurative or a non-suppurative one? This question, which is the most difficult to solve, is at the same time the most important, as upon the decision formed depends the course the physician will pursue in his management of the case; and it is just this point which calls for the greatest care in investigation of the symptoms and the clearest judgment in the estimation of their significance.

While every case must be studied by itself, a few general features of the clinical history of the disease will be of value in enabling one to arrive at a correct conclusion.

The attack usually sets in suddenly, with or without a chill. The first symptom complained of is a sudden, severe pain in the abdomen, which in my experience is generally referred to the umbilical region, though in the course of some hours the patient will probably localize it in the right iliac region. The pain may, however, be felt in almost any part of the abdomen; it is usually sharp and lancinating. The temperature rises to between 99° and 104°, and the pulse is increased in proportion. Vomiting for the first twenty-four hours is common. Tenderness on pressure in some part of the rignt iliac region, usually at or near McBurney's point, is constant and marked, as also is increased tension or rigidity of the abdominal wall in the same region. The thigh may be flexed on the abdomen from irritation of the Psoas muscle, and retention of the urine or hesitancy of the bladder may be present.

Should the case belong to the milder catarrhal type, all the symptoms are usually abating in twenty-four to thirty-six hours from the onset, especially if the colon has been well cleaned out with an enema. The pain lessens, the temperature and pulse fall and the vomiting usually ceases. The plus tension and tenderness are also less marked and the patient makes a more or less rapid recovery. If on the other hand the bowels have been well moved, and after twenty-four or at the outside thirty-six hours, the patient shows no signs of improvement; if the temperature continues elevated, the pulse rapid, the pain severe, the tenderness and rigidity marked or increased, with possibly abdominal distension, and especially if the vomiting continues, the physician may well

look out for danger ahead, and map out his course accordingly. Even with the above symptoms present in only a moderate degree an increase in the peculiar anxious facial expression so distinctive to these cases should at once arouse suspicion of grave trouble.

It must not be forgotten that in some of the very worst cases of appendicitis, even in those with the most virulent infection of the peritoneal cavity, the general symptoms and signs are comparatively mild and the patient may not appear to be very ill.

Two years ago a lawyer had for two days suffered from slight abdominal pain, loss of appetite and nausea, but attended to his office business as usual. On the morning of the third day he went to his office, but feeling no better, consulted his physician, who found that his temperature was only 99 degrees and his pulse 96, with but little localized tenderness and rigidity, but with an anxious facial expression. Nearly a pint of pus was found free in the peritoneal cavity at noon of that day.

Given a case, then, in which after twenty-four to thirty-six hours the symptoms become aggravated or show no abatement, it is highly probable that ulceration and suppuration are taking place and the attending physician must promptly decide on his course.

This brings me to my third question, viz.: What are the special indications for treatment, and what line should the physician follow?

1. Pain must be relieved by hot fomentations or anodyne liniments or turpentine stupes, if possible. If morphine must be employed, use it hypodermically and as sparingly as possible, in order to avoid masking the symptoms.

2. Remove all sources of irritation from the appendix and caecum. I think the safer course is to avoid purgatives by the mouth and rely entirely on enemata. Absolute rest in bed must be enjoined and the diet should be liquid and given in small quantities so as to allow as little faecal residue as possible. If this line of treatment be followed, and after 24 to 36 hours the patient shows no signs of improvement, but the symptoms persist and exhibit the characters outlined above, or if the case shows signs of collapse, with very marked peritoneal symptoms from the onset, or again if a tumor is developing, it is undoubtedly the duty of the physician to call the surgeon to his aid, as in all probability sur-

gical interference will be required. While the majority of cases recover without surgical treatment, experience shows that it is very difficult in many cases to say which cases will not, and the safest course to pursue in all cases of doubt is to call in the surgeon early in the case and often if necessary. The earlier he is consulted the better, as it gives both patient and surgeon a better chance, and to some extent divides the physician's responsibility.

PUERPERAL INSANITY.*

BY BARTON W. STONE, M.D.

SUPERINTENDENT MORNINGSIDE RETREAT, NASHVILLE, TENN.; FORMERLY SUPERINTENDENT WESTERN KENTUCKY ASYLUM FOR THE INSANE, ETC., ETC.

Insanity is a prolonged change in an individual's usual manner of thinking, acting and feeling, caused by disease or mental degeneration. A short transitory aberration of the mind in the course of a fever is called delirium. It is only called insanity when it is chronic. Then the individual's change of feeling, acting and thinking must be the effect of disease to constitute insanity. Conversion to religion causes such a change, and of course conversion is not insanity.

Puerperal insanity most commonly assumes the forms of mania and melancholia; though it may come in the shape of dementia and moral insanity.

In mania there is abnormal activity and exaltation of the intellect, the feelings and the will.

In melancholia there is depression of all these mental functions.

In dementia these functions are enfeebled; the patient is weak-minded.

Puerperal insanity may occur at any time, beginning with conception, on through the puerperal period and the period of lactation. It is excited by the profound constitutional changes in the nervous system begotten at this important period of the life of woman. It is escaped by the average woman, whose nervous and mental constitutions are framed to

*Lecture delivered before the classes of the Medical Department, University of Nashville.

endure without impairment the nervous strain and physical suffering of child bearing. A small minority of women, however, succumb under the excitement and become insane. They are usually those already neurotic, or anæmic, or those oppressed with family cares and responsibilities, or otherwise predisposed by inheritance or physical disease to insanity. In most instances, therefore, other causes co-operate with the puerperal condition to bring about insanity.

It is of the utmost importance that insanity of any form should be recognized early, not only because it may be best treated in the incipient stages, but to guard against perils which may arise at any time, often suddenly, in the course of the disease. If the insane woman is a melancholiac, she may without warning take her own life and the life of her child. If undelivered she may conclude herself pregnant with a monster and disembowel herself to get rid of it. If she be the subject of mania she may kill her attendants or husband without having previously shown a homicidal disposition.

The careful physician will promptly recognize any departure from the woman's normal manner of acting or talking. Indeed, he should watch for signs of mental aberration in all forms of exhausting diseases or debilitating habits in any of his patients, as well as in those in the puerperal condition. A prompt recognition of insanity may not only enable you to save your patient, but may establish your reputation as a painstaking and discriminating diagnostician.

It is not necessary that a positive systematized delusion be discovered before you can positively announce that insanity exists. If a person who is usually cheerful and hopeful in disposition, who looks upon life in a practicable, sensible way, suddenly or even gradually becomes, without plain grounds for it, despondent, anxious as to her future health or means of livelihood, with vague apprehensions as to troubles impending, etc., you may be reasonably sure that a diseased condition of the brain has already set in, and, as a physician, you are under obligation to take the promptest course to remove it. This should often be attempted without unduly alarming the friends of the patient and always without alarming the patient as to the actual condition. It is proper and honest to say to them that their nervous system is becoming exhausted or threatened with absolute breakdown, and that only the most careful measures, moral and medical, will avail to avert disaster; and begin at once to set the day and night vigils at the patient's side, to set on foot the best moral

measures calculated to influence the patient's recovery, and by medicinal agents place the general system in the best condition to make the fight against insanity.

This I regard as the direst of all diseases, a monster more grim than death itself. And here I desire to ask you never to regard lightly the slightest signs of mental unsoundness. The eccentric acts or the grotesque delusion often excite even the merriment of the uninformed bystander, but they should strike you with dread, as do incipient plague spots or leper stains. Remember that mind is the man, and an aberrant mind may transmute the human form divine into one more dangerous or loathsome than the wild beast. Guard the mind even more zealously than you would attempt to ward off the pestilence.

As already intimated puerperal insanity may arise before childbirth, or during that period, or months after childbirth. The principal cause is the profound change wrought in the nervous system of the woman during the era of procreation. Insanity occurs less frequently during pregnancy than after labor, and usually then in women who are decidedly nervous, chlorotic and badly nourished.

Women who marry late in life are more apt to be attacked before delivery than others. They have been led to exaggerate the dangers of labor; and forebodings of calamity awaiting them at delivery drive them to deep depression of spirits and to insane melancholy. The nervous and mental constitutions of these ex-spinsters do not possess the pliancy which younger women have and give way under the strain.

A good proportion of twin deliveries have been followed by insanity. Puerperal convulsions are not often followed by insanity; but pyæmic fever after delivery is the most frequent inducing factor of all; in this the brain becomes poisoned by the toxic influence, and either suddenly or gradually develops the most active and dangerous of the forms of insanity which the physician is called upon to treat.

The most frequent type of puerperal insanity is melancholia. In this type the mother often attempts to take the life of her children and herself, and too often succeeds. Imagining that she has committed crime, such as adultery, or that her soul is lost, she attempts to destroy herself by the most horrible and painful methods. I knew a refined lady who finally burned herself to a crisp after having saturated her clothing with coal oil. Attempts at starvation are very common.

If the insanity takes the form of mania, the patient has it in its most violent and demonstrative forms. She will fight with any weapon; will tear up all her bed clothing and body clothing; will break windows and furniture, and keep night and day hideous by blasphemy, obscenity, yelling and screaming up to the point of absolute exhaustion.

In a limited number of cases of puerperal insanity the form is dementia, the patient becoming imbecile, listless, inattentive to personal needs or appearance, filthy in habits, and regardless of comfort or any sort of exposure. This form is rather more unfavorable than the others for ultimate recovery, and, fortunately, much more rarely seen.

Puerperal insanity is generally some days in developing. The patient is first inclined to be nervous and restless, sleeps badly, is anxious and apprehensive of trouble, or that she may lose her mind. She begins to suspect her husband of infidelity to her or of a desire to get rid of her. Her irritability gradually increases; she expresses distaste for her food; hallucinations of smell and hearing set in, rapidly followed by loquaciousness; excited, reckless and blasphemous language being often used. She becomes more disturbed, sleeps very little. Her irritability leads her to assault others, especially the members of her own family. The hallucinations of smell and taste lead her to refuse her food, and the dread disease is fully established.

The lochial discharge is often arrested during the continuance of the insanity. The secretion of milk is also occasionally suspended. The pulse is generally not rapid; temperature very little increased; the tongue is often dry and brown however; sordes about the teeth; digestion impaired; bowels constipated.

The prognosis of puerperal insanity is exceedingly favorable under proper conditions and management. There are, however, very many women lost every year from exhaustion in the acute stage of puerperal mania and melancholia. This is owing to the awkward, unskilled management by attendants to control their violence or to administer food forcibly and artificially when they refuse to take food voluntarily. Indeed at home the refusal of food is usually a fatal complication. It is very seldom that the family and friends of patients are able to properly feed them, and when they may be able to do so they are unwilling to give them the pain incident. In the most skilled hands there is occasionally utter failure

to keep the patients sufficiently nourished until the crisis is passed, and death rapidly follows.

A small proportion of cases of puerperal insanity remain permanently insane. These are patients whose general health, menstruation, etc., become re-established, but whose minds did not gain parri passu. Such cases rarely recover.

In the treatment of puerperal insanity simple and rational rules should guide the practitioner.

The general health is usually below par, the nervous system worn by the violence of the attack of insanity, and the digestive powers are weakened. The most nourishing food of liquid or semi-liquid form for easy administration and digestion is called for. The foods may be partially predigested. Iron tonics are particularly indicated occasionally in combination with quinine or strychnine.

It is noticeable that whilst powerful hypnotic medicines often fail to bring sleep to these patients they may generally be put to sleep with a strong eggnog or hot milk or beef tea. The beneficial influence of these upon the disease is speedily apparent. Whilst seldom anything but harm comes of the employment of such narcotics as chloral, morphine, bromidia or bromide of potassium. Frequently also the patient's insomnia is increased instead of being relieved. If hypnotics are necessary, I prefer trional, 15 to 30 grains, repeated once, if required, in three hours after first dose. Sulphonal is hardly so good. A few doses of chloral of 20 or 30 grains may do no harm, but should never be continued.

The bowels of the patient must be regulated, and the phosphate of soda is of great value as a laxative, taken in full doses before breakfast. To begin with, however, it is generally necessary to administer a strong calomel and aloes purgative. Indeed a strong purgation and one night of sleep under medicine, after the uterus has been well cleansed, has set many unpromising patients well on the way to recovery.

It is, of course, important in every case that the vagina should be cleansed of anything which might prove a source of irritation. General bathing with the sponge, if the patient be too feeble for the plunge bath, is very important. A warm bath at bedtime may aid in inducing sleep. When strong enough, out-door exercise will hasten recovery.

The moral measures of benefit are the removal of such members of the family who do not co-operate in nursing and watching the patient. Children ought certainly never to be

allowed to see the patient; both children and patient are almost sure to receive injury by an opposite course. The presence of visitors is very objectionable. The conversation carried on in the sick room should be of a cheerful, practical character, with no references to the eccentric conduct or delusions of the patient, and certainly without argument to combat their erroneous ideas. As little force in management as possible should be used. The substitution of tact will generally accomplish the effect desired and in a way more agreeable to patient and attendant.

The forcible feeding of the patient, already referred to, may be easily accomplished, as a rule, without the use of stomach tube or nasal tube. Great patience must be exercised, however, and persistence until a full quantity has been swallowed, even if an hour should be consumed at each feeding and quantities of food wasted. The most effective plan is to place the patient supine on a pallet, her head low. Have the hands and feet well secured; one attendant must hold the nose of patient at the same time, drawing the lips apart from the teeth without prying open the teeth. Another attendant may then pour the liquid food into the mouth even rapidly to find its way to the throat by passing behind the teeth instead of between them. Breathing spells must be allowed from time to time. The full quantity of milk or broth or egg nog or milk punch may be administered within ten minutes usually, with very little waste, often none.

A few very wiry, active and strong patients are able to successfully resist forcible feeding by this method. The rectal or stomach tube may then be employed, or rectal alimentation. Sometimes very tempting food may be taken by the patient if it is left within her reach and she be unobserved.

The induction of premature labor has been resorted to for the relief of puerperal mania occurring early in pregnancy, *generally* without influencing the course or severity of the attack of insanity. In insanity occurring after confinement, during lactation, relief has occasionally come with a new conception.

It is important in cases of insanity that the child be weaned and the breast of the patient well cared for.

Patients laboring under puerperal insanity may often be successfully managed at home. Indeed sometimes it is next to impracticable to remove the patient safely from home to any other place. A large proportion of the cases are very

feeble and broken down in health and so unable to give the trouble in their care and control which stronger women almost invariably do in this form of insanity. It is generally regarded as but justice that all patients should be kept at home for some weeks, if possible, after puerperal insaniy h as set in. Very strong, watchful attendants must be secured, and the physician should see the patient at least twice a day. The room should be specially prepared by removing all furniture not necessarily required for use; cords, knives, iron pokers or any thing which might be used as a weapon should be taken out of the room. The windows may be fixed so that they may not be opened wide enough to enable the patient to escape. The room should be also as near the ground as convenient, to lessen the danger if the patient should get out of the window. The greatest watchfulness should be observed, not only to prevent any attempts at escaping on the part of the patient, but also to guard against suicide, or a homicidal assault.

The early treatment of puerperal insanity may in rare instances relieve the patient in from one week to two or three months, and she may resume her position in society as she would after an attack of pneumonia or typhoid fever. The name delirium may then be applied to the disease by her friends instead of insanity.

The well nigh universal idea that insanity casts a stain upon the subject and her family is often a barrier to recovery if the patient realizes that she is insane before she fully recovers. The same idea, too, has brought about recurrence after recovery has taken place. I have often heard recovered patients remark that they were ashamed to go back to their old companionships on account of slurs which they felt sure must be encountered. I trust the time will come when the family of an insane person will suffer no more socially than that of one who has had typhoid fever.

When puerperal insanity has become fully established and the delusions become systematized and clearly defined, the friends of the patient must face the fact that an attack of insanity of a dangerous and troublesome nature has set in, and that no relief can be hoped for under three months, the disease usually taking six months or over.

The toil and peril of the long period of nursing usually determines the removal of the patient to safer special hospitals for the insane. This is fortunate, too, because it is only after

removal out of the scenes and associations in the midst of which the patient became insane that the best results can be had. The patient must be relieved of the mental worry of planning and managing for herself. The mother of the family will seldom complacently allow the members of her own family, even her own husband, to direct her. She will try to control others instead. This accounts largely for the salutary effect of a residence among strangers. You will be called upon to make the decision often as to the proper time for removal; and the momentous issue should prompt you to exercise your trust with mature judgment, after deliberate investigation of the subject in all its bearings.

Without doubt the trained attendants of the hospital for the insane are able to accomplish far more towards the restoration of the patient than is possible at home. They can care for the patient with greater ease and with greater satisfaction and comfort to the patient, with less physical restraint and many more opportunities for free exercise in the open air than is possible in the home. It is also more often necessary to employ narcotics at home to quiet the patient and to prevent her from alarming the neighborhood by her shrieks and cries. And the use of narcotics generally materially retards the recovery of the patient.

I will emphasize the statement that I have made as to common sense treatment by tonics, nourishing diet, rational attention to the bowels, kidneys and vagina, bathing, a spare employment of narcotics, good ventilation of room, out-door exercise, careful selections of attendants and judicious companions who will act toward the patient and converse with her in a proper manner. Such a course as this will usually suffice to bring about the restoration of your patient.

Where ordinary measures, including medicines, seem to fail in improving the patient's mind, I invariably resort to the use of the animal extract, thyroids, pushing it to the limit of toleration. I have often been gratified by a speedy response of patient to the remedy, and a happy recovery within a few months.

A CASE OF CESAREAN SECTION.

BY C. BAILEY BELL, M.D., VINITA, I. T.

On the night of the twelfth of July I was called to meet Dr. Page at a place twelve miles out. His only message was, "A case of labor; bring chloroform." The night was as dark and stormy as could be imagined, and I was wet to the skin when I reached the house at 3 a. m. The patient was a Shawnee primipara, age 27, weight about fifty pounds, and was called a dwarf. She had been in labor for twenty-four hours, and the waters had escaped some twelve hours before myarrival; upon examination under chloroform the head was found at the brim in the second position. The smallest diameter of the pelvis was one and one-quarter inches, and the transverse diameter only two and one-half inches. The head was large and firm and fixed in its position.

Dr. Page had already examined her, and it was quickly decided that cesarean section was the only alternative, as there was not sufficient room for craniotomy, and even if there had been room, the head was so well developed and firm that the manipulation required would as greatly endanger the mother's life as would a section, whereas, by performing the cesarean operation, we were more certain of saving the child. At this stage we scarcely hoped to save the mother. It was readily agreed that the operation should be done, and as soon as possible. The surroundings were extremely unfavorable for the operation. Neither of us had ever seen the patient before, and the only instruments available were one needle, one hemostat and a scalpel. We were forced to trust to our knowledge of anatomy to avoid wounding large blood vessels. With boiling water and bi-chloride, the patient, ourselves and instruments were rendered aseptic. There were only Dr. Page, his wife and myself to do the operation. The rain and wind had increased till the rain beat through the roof and slowly trickled down our backs, an occasional drop striking the patient as we proceeded. We devised a table; the patient took chloroform nicely, and the operation was begun by the light of a dim lamp, a dimmer lantern and lightning flashes.

The incision, made in the linea alba, was carried from the

diaphragm almost to the pubes, passing around the umbilicus. The length of the incision was occasioned by the short stature of the patient. The uterus was now lifted and carefully surveyed to find the blood vessels. On account of the lights the operator's hands darkened the field of operation, so at this stage I defined the line and Dr. Page made the incision, opening the uterus and exposing the child. The hemorrhage so far was very slight, no important vessel having been wounded. While I held the uterus Dr. Page caught the child by the feet and quickly drew it out. The placenta was easily detached. All clots were turned out of the uterus, which was held until firmly contracted, then sutured with silk and replaced. The abdominal wound was also sutured with silk and dressed with iodoform, gauze and cotton. Hot bricks were put to the patient's feet, a stimulant administered, and she came from under the anesthetic with a good pulse and respiration. The cord was tied now, the child being a strong nine-pound girl. I did not see the patient again. She recovered nicely from the shock, but peritonitis developed, and she died on the fourth day. The child is doing as well as any baby a month old.

What I have learned from this case is, that when going to obstetrical cases at a distance we should go prepared to do any obstetrical operation that may confront us. I am also confirmed in my preference for the cesarean operation over craniotomy or embryotomy, when the head is firm and the soft parts bruised. In this case there was practically no choice. Could craniotomy have been done, I am satisfied that the operation would have been fatal to the mother. Could we have operated on this woman before she was taken in labor, in an operating room, with all antiseptic precautions, I am satisfied that her life could have been saved along with the child's.

I have seen some of the unfortunate results of craniotomy and embryotomy. In one case, a most distressing one, life was not extinct in the child when born, a circumstance most embarrassing to the surgeon. Embryotomy, always dangerous to the soft parts of the mother, is doubly so when performed under the circumstances which usually surround the operation in unexpected cases. I can call to mind several cases which have been related to me, in which I believe the child could have been saved and the mother given a good chance had the cesarean section been done. Craniotomy was

done in two cases, nothing in the other two, and in all both mother and child perished.

Cesarean section has, until recently, been looked upon as almost certainly fatal to the mother, but when the principles of aseptic surgery are carried out as strictly as possible, the operation loses much of its gravity. I admit the difficulties of aseptic practice in doing this operation, yet if the patient is seen before taken in labor, and is fully prepared as in other abdominal sections, the chances of a successful operation as regards both mother and child are good. The technique of the operation is simple, but the danger of infection is great, and requires the utmost care and most skilful manipulation to prevent the escape of a portion of the uterine contents into the peritoneal cavity. For the same reason great care must be exercised to place a sufficient number of stitches in the uterus.

HEMORRHOIDS.

Sims (Maryland Medical Journal, May 7) advocates a new operative treatment applicable to the majority of cases of both internal and external hemorrhoids; also to other benign neoplasms of that region. With the patient in either the lithotomy or Sim's position, he introduces a speculum, divulses the sphincters as widely as possible by the instrument and with the thumbs stretches them until completely paralyzed. The piles now presenting themselves are everted as much as possible and the anal region irrigated with a 1 to 2000 bichlorid solution. On pulling out the tumors by forceps, the mucous membrane is cut through with a sharp scalpel around the base of the pile, and a silk ligature tied tightly in the groove made by the incision, including only the blood vessels and connective tissue. "The pile is then cut off close to the ligature, leaving only enough to hold it, and the cut edges of the mucosa are brought together over the stump with continued sutures of catgut." With external piles the same method may be used.

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EDITORIAL.

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NASHVILLE ADVANCES HER REQUIREMENTS FOR GRADUATION.

We were requested to announce in the September number of the BULLETIN, that the Medical Department of the University of Nashville had decided to demand of all students entering upon the study of medicine after the present session of 1898 and '99, four courses, of at least six months each, in separate years, as a requisite for graduation. The request came after the BULLETIN had gone to press, so we were unable to make more than a formal announcement.

The Alumni of the school will be proud of this new evidence on the part of their Alma Mater, of her intention to turn out only men thoroughly educated in modern physic and fully equipped to lead in the great fight that scientific medicine is waging against disease.

The history of medicine shows a gradual, though slow, development corresponding with the intellectual progress of man. In Europe, medical education has long held a high place. There for many years legal bulwarks have been erected about its practice. These laws were the result of a demand arising from the increasing intelligence of the people. The public of these countries were evoluting from the age of the *Tom-Tom*, the voo-doo, the witch, the barber surgeon, the bone-setter, and the more modern charlatan, before this great country of ours had declared her independence. It took Europe centuries to shake off these shackles of an ignorant age. But our young genius of the Western Hemisphere, the United States, with mighty leaps and bounds, in less than a century, has reached that position which the East arrived at only after a long period of darkest ignorance.

On this Western Continent our sister country, Canada, because she was less disturbed in her political life and because she was in touch with the mother country, England—early made laws, commensurate with the intelligence of her citizens, governing the practice of medicine. But here in the United States, in the early part of the century now drawing to its close, jealousy of new found freedom prevented our law-makers from placing upon our statute books enactments that might seem to interfere with the privileges of a class, even though their practices bordered upon crime. Endless abuses, however, naturally arose; quacks and frauds imposed everywhere upon the people. Diploma mills caused the degrees of our respectable colleges to be of doubtful value in any country but our own. Small colleges, little better than diploma mills, sprang up all over the land. Even our best institutions were far behind the schools of Europe. After a time the spirit of the long suffering American people rebelled against these errors resulting from the absence of proper government, and demanded legal protection.

Slowly, but surely, from one end of the country to the other the will of the people is making itself evident. State after State, beginning with the most advanced, has passed laws gov-

erning the practice of medicine, until now but few remain that do not demand of a man who desires to follow the profession of medicine at least some proof of ability to perform the duties he wishes to assume.

The demand for a higher order of qualification amongst doctors has come from the supreme voice of the State, viz., that of the people; but medical men and medical teachers have not been ignorant of the necessity for higher education in the profession and better teaching in our schools.

Canada more than thirty years ago had medical schools, graduating their pupils after a four years course. A quarter of a century ago Harvard announced her conviction that the course of medical students was too short and advanced hers to four years. Then some of the other Northern schools followed in her footsteps, born of a necessity for more advanced teaching than could be had in the medical schools of the country. That new order of school was from the first well patronized by both old and young graduates, who by their attendance admitted that their medical education was not complete—were not what their patients demanded—were not what they were entitled to. In the South the medical schools have been slow in lengthening their courses of study; but that they have been alive to the necessities of the age is proven by the new departments that have from time to time been established.

The Medical Department of the University of Nashville has been constantly amongst the leaders in this respect, hence it is not surprising to find her now, when many of the other schools of the South are still holding back, boldly announcing her intention to go to a four years course. The faculty know that to acquire a satisfactory medical education a man must first have a thorough knowledge of physiology, histology, bacteriology and chemistry, hence they have made ample provision for the teaching of these branches in a practical manner. They have learned also that to accomplish this, time is required, and that three years is not sufficient, and as a consequence they have decided upon the longer term. If

the future develops the fact that more time still is required, the course will be still further lengthened as may be found necessary.

The published records of the State Board of Examiners is already beginning to have its effect upon men entering upon the study of medicine. They are seeking those schools that, judged by these records, show the highest grade of teaching. Students do not value and are ashamed to possess diplomas from schools in doubtful standing, whose examinations are below those set by the State Boards and whose diplomas are issued after a quasi examination, provided the *fee* be forthcoming. It is true that inferior schools often turn out men who impress their personalities upon the world. These men are certainly self-made, since their high order of intelligence enables them to surmount all obstacles and reach these high planes despite their early training. It is not out of place, however, to speculate upon what might have been the futures of such men had they not been handicapped by a poor foundation upon which they reared their life structure.

It will be asked by some: Will this extra work, extra time, and extra expenditure pay the ordinary medical student? Permit me to quote from a letter written me by that keen observer and brilliant child of the Medical Department of the University of Nashville, Q. C. Smith, of Austin, Texas. He says, in speaking of the notice of the intended four years course: "The people are now demanding a higher order of qualification in their servants, both of high and low degree. Higher prices are now paid physicians and surgeons than ever before for their services and none are so far from market as those who have nothing to sell."

Yes, my friend, tell your students it will pay; tell them that if we, the Anglo Saxon race, are to continue to lead and govern the world, it must be done largely by brain as well as by brawn. Remind them of the words of the Grand Old Man to his Queen: "You must, Madam, sign these papers, for the people demand it."

OPENING OF THE FORTY-EIGHTH REGULAR SESSION OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NASHVILLE.

The largest class of medical students that has assembled in Nashville for an opening day since the inauguration of the three year course, gathered in the auditorium of the college building on the morning of October 3. With a few visitors, the students completely filled this, the largest hall in the building. A few minutes past ten the Chancellor, Dean and Faculty, in the classic caps and gown of the Universities, entered and took their seats on and around the rostrum.

Dr. Ewing acted as master of ceremonies and introduced the Rev. Dr. W. E. Ellis, who most impressively invoked the blessing of the Almighty upon the assemblage and the work which that day was to begin.

Then Dr. W. G. Ewing, as Dean of the Faculty, delivered the opening address, which was most attentively heard, and which we give in full elsewhere in this issue.

The Chancellor of the University, Dr. W. H. Payne, then came forward and spoke for some minutes. He told the students that they had a right to feel proud of the Alma Mater they had selected to guide them through the preparation for a professional career; that they had entered a university more than a century old, and that in its traditionss in its nobility of age, they could find an inspiration, a force which a younger school cannot have and cannot give to its students. He spoke of the strength which professional schools find in their connection with a great university, and indeed, it is hardly to be conceived that a great professional school could exist, cut off from such connection. He told them that their diplomas would be well earned, and that they would find a diploma from the University of Nashville a passport to preference; that the glory which it reflected upon the Medical School and its graduates was not the mere shadow of a name, but its substance.

He quoted the fourth commandment, "Honor thy father and thy mother," and told them that it applied to their intellectual parentage no less than to the physical, impressing upon them the duty of adding to the glory of their Alma Mater

by the example of noble and useful lives and worthy achievment.

He said that the great question to be decided concerning one's life work was, "In what line of activity can I do the most good in the world?" If one felt that he could do most in the practice of medicine, then he should become a physician, but not otherwise. But no other class of men, not even the school teachers, to whom he was proud to belong, had such opportunities for good as the physician. To make the best use of one's opportunities in this as well other occupations, the first and most necessary thing was that one should be a gentleman; that the characteristics of a gentleman were thoroughness, devotion to duty, and perfect agreeability; that one had no right, through one's own fault, to be disagreeable to any human being; that with this always in mind, no one could fail to make a success.

Dr. J. M. King, the Secretary of the Faculty, then announced that the regular program would be taken up at once.

The assemblage then dispersed, the students proceeding to the City Hospital to attend Prof. Wood's clinic.

In the afternoon the laboratories and lectures were in full sway.

PERSONAL—It is announced that Dr. C. Bailey Bell, of Vinita, I. T., president of the class of '96-97, and now the leading physician and surgeon of his section, is to be married to Miss Mabel Cooke, also of Vinita, on Nov. 10.

SECTION ON MEDICINE.

UNDER CHARGE OF W. L. NICHOL, M.D.,

PROFESSOR OF DISEASES OF THE CHEST, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; AND

E. G. WOOD, M.D., C.M.,

PROFESSOR OF PRACTICE OF MEDICINE AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF THE BRITISH MEDICAL ASSOCIATION, ETC., ETC.

TOXI-ALIMENTARY DYSPNOEA.

Bohn (Journ. de Med., June 10, 1898) has made a series of observations on the occurrence of dyspnoea under certain conditions of toxic absorption from the alimentary canal. This form of dyspnoea is intermittent, but of continuous tendency. It is sometimes exclusively nocturnal, but sometimes occurs during the day as well, and when of nocturnal occurrence it is generally in the early part of the night. It sometimes becomes exclusively diurnal in patients who have previously only suffered at night. The dyspnoea begins as a simple defect of respiration with a feeling of weight, but no pain or agony. The first symptom is liable to appear as the patient is falling asleep, or, should the attack be diurnal, it is provoked by some effort which may be apparently slight, as going upstairs, an animated conversation, or carrying something slightly too heavy. An attack presents the following features:

The patient first complains of a "bar-of-iron" feeling across the chest, with sense of weakness and utter prostration. This is followed by a sensation of rigidity of the chest, so that respiratory movements seem impossible. At the same time there may be gastric convulsion, giving rise to noisy eructations followed very often by vomiting. The heart beats in an agitated manner, and respiration then takes on the characteristics of an asthmatic seizure; the face becomes pale, and cold sweats break out. The attack lasts for half an hour or more, to be followed by sanguineous expectoration. These symptoms may not be all present in the same case, for gastric eructations may be absent. Physical examination shows the

presence of tachycardia and *bruit de galop*, but examination of the lungs reveals few if any physical signs. There may be intervals of long duration between the attacks. This form of dyspnoea is often accompanied by certain symptoms of an interesting character, such as pallor of the face and integuments, and *digiti mortui* and vertigo, and inefficient kidney action. The condition, according to the writer, is one of arterial spasm with accompanying increased arterial tension, and thus it is likely to cause sclerosis of the vessels.

As to the cause of this affection and the various complications which accompany it, evidence would go to show that some alimentary defect is present, this occurring in subjects whose arterial system is in any way effected, or whose eliminating organs are defective in their action. Some temporary indiscretion of diet is liable to be followed by the absorption of some toxic material, causing an attack of dyspnoea. The writer points out that this form of seizure must not be confounded with uraemic dyspnoea, the latter being due to an endogenous form of poisoning from the retention of toxic materials produced in the organism itself. Alimentary toxaemia, on the other hand, is exogenous, and depends on poisonous materials coming from outside. It follows, therefore, that on the choice of diet will depend altogether our success in treatment. Patients with arterial sclerosis must therefore exercise particular care in diet, and should there be any tendency to dyspnoeic seizures, the diet should be largely composed of milk, one suggestion being to give the patient milk diet for a week at a time, to be followed by a somewhat more liberal menu the following week.—British Medical Journal.

SERUM-THERAPEUTICS IN YELLOW FEVER.

Professor Sanarelli, the Director of the Hygienic Institute of Monte Video, has made a further report of his experience in the treatment of yellow fever with a serum obtained from horses vaccinated with the bacillus icteroides. The horses were inoculated with a virus of gradually increasing intensity for a period of from twelve to fourteen months. The serum was used in the case of eight patients by Dr. Seidl in the St. Sebastian Hospital of Rio Janeiro. Five of them had reached the fourth day of the disease, and were in a highly critical state when the injections were commenced; four who had reached the stage of anuria and delirium died, and the fifth recovered after having receiving 80 c.cm. of the serum. Of

the three remaining patients one had reached the second day of the disease, and two the third day. They had all the symptoms of the earlier stages of virulent yellow fever, including albuminuria, but neither suppression of urine nor delirium, and they all recovered after vigorous serum treatment. It was noticed that after each injection there occurred a fall in the temperature. At a later date, two children having the characteristic "black vomit," one at the second day of the disease, and the other at the third, were treated with the serum by Dr. Sanarelli; the fever and the albuminuria quickly disappeared, the other general symptoms more gradually, but convalescence was well established after the injection of 20 c.c. and 65 of the c.c. of the serum respectively. In another series of six cases occurring in an epidemic having a mortality of between 80 and 90 per cent., four recovered and two died. In fourteen other cases the serum was injected directly into a vein; eleven of these more or less rapidly recovered; of the three who died one had resisted the treatment, another had been delivered of twins a month previously and was very badly nourished, and the third was the subject of pronounced paludism. Thus 66 per cent., of two-thirds of all the cases treated recovered. The serum obtained from an ox, which was found to be less active than that from the horse, was used as a prophylactic in a severe outbreak in an insanitary prison. Four persons had died in the course of a few days. All who were not immune by reason of a previous attack were then injected, and no other case occurred, although the epidemic still raged in the adjacent town.—British Medical Journal, Sept. 3, 1898.

SECTION ON THERAPEUTICS.

UNDER CHARGE OF W. G. EWING, M.D.,

PROFESSOR OF MATERIA MEDICA, THERAPEUTICS AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

RATIONAL ETHERIZATION—A STATISTICAL STUDY.

In the Medical Record of January 29, 1898, Dr. M. B. Brouner writes a paper with this title. He summarizes as a deduction from his experience the following:

1. That etherization should be entrusted only to experienced hands.

2. That a special cone is not necessary for successfnl etherization. The simpler and less complicated the apparatus the better.

3. That the so-called "force method" of etherization is unnecessary, cruel and oftimes injurious.

4. That vastly better results are obtained by a gradual, quiet administration.

5. That the amount of ether employed should be minimized, preferably given drop by drop after anesthesia has been fully established.

6. That the evil sequelæ are directly proportionate to the amount of ether employed, and indirectly proportionate to the duration of the anesthesia.

7. That the so-called baneful after-effects on bronchi, stomach and kidney are largely overestimated, and in a large degree controllable.

8. That women require a smaller amount of ether, though a longer time to produce anesthesia, than men.

9. That alcoholic subjects require a longer time and a greater amount of ether to produce anesthesia and to maintain it.—The Therapeutic Gazette.

THE TREATMENT OF POISONING BY CARBOLIC ACID.

La Presse Medicale of March 19, 1898, tells us that Landouzy gives the following directions as to the treatment of this condition: Inject immediately by hypodermic syringe thirty to sixty minims of sulphuric ether as a stimulant. Use a rectal injection of two ounces of sulphate of sodium in three pints of filtered water, irrigating the bowel as high as possible after the manner of Cantani. Administer by the mouth or by means of an esophageal tube one ounce of sulphate of magnesia in a quart of hot water, as this will form an innocuous sulpho-carbolate with the carbolic acid. It may be necessary, also, to bleed the patient and then to perform intravenous transfusion or hypodermoclysis, the injection consisting of 300 grains of chloride of sodium in a quart of boiled distilled water. Morphine and heat should be applied to the extremities, and if the fluid which has been injected into the rectum to wash it out has been passed away, a small injection of strong black coffee should be given as a respiratory stimulant. Tea and hot punch may also be administered.—The Therapeutic Gazette.

SECTION ON NEUROLOGY.

UNDER CHARGE OF T. L. MADDIN, M.D.,

PROFESSOR OF NERVOUS DISEASES AND GENERAL PATHOLOGY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF AMERICAN MEDICAL ASSOCIATION, ETC., ETC.

Sir John Batty Tuke, of Edinburgh, delivered an address in the General Session of the British Medical Association, sixty-sixth annual meeting, held in Edinburgh July, 1898, taking as his title, "Modern Conception of the Etiology of the Insanities."

It was inevitable from the earliest down to quite recent times that the study of the insanities should be carried out on physiologic lines. The prominence of the mental symptoms asserted itself, and cases of insanity were classified under the terms *mania*, *melancholia* and *dementia*. Notwithstanding the so-called forms were based on mere external appearances, these terms assumed the proportion of diseases. The symptom was the essence of the case, and the underlying causating condition was ignored.

Undoubtedly to the public and the lawyer, the mental symptoms must always be the essence of the case; but to the physician they are not. He has to go further back and seek for the *fons et origo mali*. Still in the hands of Pinel and his school the psychological method of study subserved important purposes; but this undivided adherence to the psychological principle of study led to "an undue love of minute detail," and consequently undue extension. Instances in which intellectual deficiences were not so apparent as changes in feeling and conduct were designated cases of "moral insanity," with such sub classes as pyromania, cretomania, kleptomania, homicidal and suicidal mania, and so on, irrespective of the clinical observation that no case of insanity exists without moral aberration, and that in those cases in which moral obliquity is most prominent the intellectual faculty is most weakened, inasmuch as the patient is not able to recognize the nature of his immoral acts or weigh their consequences. Thus confusion became worse confounded, and fallacies arose within the psychological conception itself.

It is only during the last thirty-five years that the study of

the insanities has ceased to be so distinguished, or at least that scientific data have been afforded which should prevent it being so distinguished, data which although still far from being perfect, have afforded starting points to the psychiatric physician for the scientific study of his subject. It is of interest and importance to contrast the state of the knowledge of the anatomy and physiology of the cerebral hemispheres in 1864 and that of 1898. Up to the former year even the rough, naked-eye anatomy of the convolutions was chaotic, only some two or three gyri being recognized as distinct anatomical landmarks.

Great as has been the work of the anatomist, that of the physiological pathologist has been equally important. Hughling Jackson's name must ever hold the foremost place in this department of science, and Fritsch, Hitozig, Ferrier and Gowers would be the first to acknowledge that his induction opened up that field of inquiry which has been of such importance to the study of nervous physiology and pathology.

The physiologists of the psycho-physical school, which arose as the result of scientific developments, advanced the study of psychology so far as they ranged scientific data, so as to add to the "provisional body of propositions" about states of mind necessary for their philosophy. Whether our knowledge of states of mind has been materially increased by the lucubrations of this school is open to question, but there can be no doubt that the views not only of the physiologist, but of all thinking men, have been enlarged by the appreciation of the philosophic mind to the scientific position. Were it only that the world has had placed before it the proposition, that the essence of mental life and the essence of bodily life are the same—namely, the adjustment of inner to outer relations—great gain has decreed to science and philosophy. But the change of conception of the nature of insanities is much more due to the establishment of scientific data bearing on the antecedents of mental action than to the generalizations of the philosopher as to mental activities.

Time, the speaker said, would permit him only to allude to the observation around which all others center—that is, the demonstration of the mechanism by which impulses are carried from the periphery to the cortex and from the cortex to the periphery.

We know that series of fibers exist which, starting from the entire surface of the body, the muscles and from the mucous membranes, are collected in the spinal cord, and pass up-

ward to the optic thalami, whence they are distributed in three systems to the cortex. To take as an illustration, only one of these "sensory" systems—that which passes direct to the Rolandic cortex without forming connections in its upward course with any other system of fibers. In the external layers of gray matter these fibers come into relation with the dendrites of the pyramidal cells; but there is no anatomical continuity between the sensory fibers and the dendrons; they transfer impulses by contact. It is contended that the liberation of energy takes place in the dendrons, which, by their gemmulæ, are in close contact with the dendrons of other cells, forming what Foster terms "synapses." Be this as it may, impulses descend to the cell bodies, through which certain of the fibrils of the dendron pass to the descending axon—till lately spoken of as the axis cylinder—the fibrils of which are distributed to the periphery, throwing off collaterals to remote areas of the cortex. In order to obtain and maintain the conception of the mechanism of a circuit, it might be well not to restrict the term "neuron" to the cell body and its dendritic processes, but to include in the term the ascending conducting apparatus, the cell body, and the spinal, cerebellar and cerebral distributing arcs, and to regard the whole apparatus as a physiological if not an anatomical unit.

It is not necessary to consider where and how the transmutation of peripheral impulses takes place, but it is of importance to emphasize the statement that impulses are not generated in the cell body. As Gowers says, the old battery idea must be thrown aside. It may be regarded as the "vital center" of the neuron, and, making allowances for the possible action of the dendrons, it may be held as the receiver, conservator and transmitter of energy, and the liberator and distributor of energy by means of its synapses with other pyramidal cells, and, what is of supreme importance, with association cells. But all impulses come from without—a fact which must have important bearing on the question of the adjustment of outer and inner relations.

It is as difficult to estimate the influence of developments of knowledge of the nervous system on the individual general physician as it is to gauge the influence of bacteriology. Our acquaintance with both of these subjects is a recent acquisition. The latter is a new science, and in the case of many of us only its outlines are present with us. But its principles pervade the method of thought of the whole profession. So with the study of minute anatomy of the brain; none but

experts can be expected to be acquainted with the full details of its anatomy, but the great leading facts as to structure, and the facts, theories and warrantable assumptions as to its action have operated and continue to operate on the views of the specialty at large.

A strong indication of the awakening of the scientific spirit is afforded by the earnestness with which the study of the morbid anatomy of the brain is being prosecuted by the psychiatrist all the world over. The value of research into morbid cerebral anatomy has made itself so strongly felt that laboratories have been established in many asylums. As a consequence of this system of study, a vast change has come over the aspect of psychiatric literature. The journals of the day, instead of dealing largely with analyses of the mental conditions of real or imaginary persons, with abstract considerations and mere clinical details, are now mainly occupied by papers of a strictly scientific character bearing on the production of neuroses, and the reports of cases are rarely confined to a mere description of symptoms.

But the all-important question remains to be answered—what effect has the change in the principles of study on general pathology, practice and treatment? As regards general pathology the evidence is manifold. In former times the theory of the effect of the mind upon the body held a foremost place and gave rise to many misconceptions; but now we recognize that the brain exercises trophesial function over all of the organs of the body, and we are alive to the fact that the general degradations are referable to imperfect brain action, that they are secondary to the reduction of its nourishing action, and are to be treated accordingly.

In most of the recently erected institutions for the insane, at home and abroad, we find separate hospitals provided for the treatment of recent and acute cases. This surely marks the reduction of theory to practice. Instead of the subject of a recent attack of insanity being mixed up with the residuum of cases, he is placed in a separate institution, where he is submitted to systematic treatment on thorough hospital principle. But even with such appliances many of those working with the insane are heavily handicapped, as no provision is made by the public for the treatment of such cases in their initial stages. Statistics show that the increase of chronic lunatics occurs amongst the poorer classes of society, and not among the rich. This is due to the latter being able to place members of their class, showing indications of incip-

ient insanity, under systematic treatment at home during the prodromal stage; while the former are compelled to allow matters to drift till cases become more or less confirmed.

If we exclude general paralysis and epileptic insanity from consideration, at least eighty per cent. of recent cases are amenable to treatment. But such treatment is necessarily costly, as it involves nursing, possibly change of residence, and continuous medical attendance. This is out of the power of the poor to obtain. All general hospitals shut their doors against persons suspected of insanity, but the asylums cannot receive cases until the symptoms are so far advanced as to warrant certification; and, in England especially, the procedure for the transmission of insane persons to asylums is so absurdly cumbrous as to prevent many persons from being placed under treatment until such time as the probabilities of recovering are seriously lessened or the case is hopeless.

If teachers conduct their courses of instruction on the general principles which govern the teaching of medicine, the general practitioner will soon be treating insanities as he does every-day disease, and we may fairly anticipate a reduction of the number of cases relegated to asylums in consequence of early and rational treatment.

SECTION ON ABDOMINAL SURGERY AND DISEASES OF WOMEN.

UNDER CHARGE OF M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

Dr. E. E. Montgomery, in the Therapeutic Gazette, in speaking of the treatment of uterine fibroids, states that they require interference with:

1. When they occasion hemorrhage.
2. If discharges purulent or muco-purulent endanger the health.
3. If pain is great.
4. If they press upon the veins and cause oedema of the feet.
5. If there are symptoms of pressure upon the ureters, bladder or rectum.

Of other conditions that may arise and demand treatment

he mentions disturbance of respiration, or circulation, changes in the tumor, as necrosis and malignancy. He calls attention to the fact that fibroids usually increase rapidly under the stimulus of pregnancy, and are often a bar to delivery. The advent of the menopause is not a certain sign of decrease in the growth.

Medical treatment affords but little encouragement. It is ineffective to combat hemorrhage, and is not unattended with danger.

Cure by use of electricity is so rare as to make doubt as to diagnosis in those cases justifiable.

Hot douches, massage curettement, extra uterine medication castration and ligature of the uterine arteries are not always effectual or free from danger.

Myomectory, or removal of the growth is the most rational and sure method of dealing with these growths.

MENORRHAGIA AND METRORRHAGIA AS SYMPTOMS.

W. L. Dunning (The Am. Gyn. and Obs. Journal) says: Among the local causes may be mentioned conditions that favor congestion of the uterus; as,

First, inflammatory conditions of the uterus or appendages —metritis, endometritis, salpingitis, oophoritis, peritonitis.

Second, obstruction to the venous flow, as in displacements of he uterus, retroversions, and flexions, especially if bound down by adhesions; prolapsus; subinvolution following labor at term, abortions, lacerations, etc.

Third, diseases of the endometrium, granular or fungous endometritis, exfoliative endometritis, polypi, adenoma, retained products of conception, hyperemia of the endometrium incident to the presence of growths, or inflammation either of the uterus or appendages.

Fourth, fibromyomata, especially the submucous and the interstitial forms. They largely increase the blood-supply and mechanically obstruct the venous return, and keep up a hyperemic and irritable condition of the endometrium. The nearer the tumor to the mucous membrane the earlier and more profuse the hemorrhage. Beginning as a profuse menstruation may become continuous.

Fifth, malignant disease, when carcinoma of the body of the uterus; hemorrhage for a long time may be the only symptom.

Sixth, placenta-previa should be thought of when the patient is pregnant.

Seventh, abortion, threatened abortion, and attempted abortion must be borne in mind as possible causes of uterine hemorrhage. Married women as well as single ones may attempt abortion upon themselves, and in their effort to conceal it may deny the existence of pregnancy.

Eighth, extra-uterine pregnancy, especially after rupture of the tube down between the folds of the broad ligament; hemorrhage may be continuous, making its exit through the uterus. The patients are usually supposed to be suffering from a miscarriage.

TREATMENT.—As menorrhagia and metrorrhagia are but symptoms of some pathological condition, it is illogical to institute treatment until the underlying cause is determined. In the case of menorrhagia in virgins, tonic and hygienic measures suffice as a rule. If meriorrhagia is present it calls for investigation.

First, inflammatory diseases of the uterus and appendages are in most cases septic or suppurative, and, therefore, as a rule, the treatment is surgical.

Second, displacements of the uterus must be corrected before the hemorrhage can be controlled, which means either a pessary skilfully applied or a surgical operation.

Third, in the various diseases of the endomentrium, as fungous degeneration, polypi, adenoma, retained products of conception, etc., a curettage is indicated. The dangers of this procedure from sepsis, perforating the uterus, etc., are such that it can be only done thoroughly and safely by those properly trained in surgical work.

Fourth, fibrous tumors, when symptoms are annoying, may usually be enucleated without sacrificing the uterus. This applies especially to those of small and medium size, curetting as a palliative measure.

Fifth, when malignant disease is limited to the uterus or can be completely removed, total hysterectomy is the only rational treatment, any other would be little short of malpractice.

Sixth, as a rule cases of abortion require curettage to secure the patient against hemorrhage and sepsis. In threatened abortion, naturally we would endeavor to preserve the life of the fetus, unless the patient was septic, when, after a consultation operation may be deemed necessary—a curetting.

Seventh, extra-uterine pregnancy calls for surgical opera-

tion as soon as discovered. It does not necessarily mean the sacrifice of the uterus. It may often be removed through the vagina. Vaginal incision and drainage often suffice.

In case of alarming hemorrhage from the uterus from whatever cause, packing the uterus with sterilized gauze will control it perfectly, but must be done after all the precautions against sepsis used in any surgical operation. The gauze may be removed in twenty-four hours.

SECTION ON OBSTETRICS.

UNDER CHARGE OF S. S. CROCKETT, M.D.,

PROFESSOR OF OBSTETRICS, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

UNCONTROLLABLE VOMITING IN PREGNANCY.

Dr. Geoffroy (Le Scalpel, January 1, 1898) indicates a new method of treatment based on the employment of very gentle massage. This author, who has for a long time employed prolonged palpation in the treatment of affections of the digestive tract, has observed in several cases of uncontrollable vomiting that there existed at a point in the digestive tract a localized spasm transferred by reflex irritation from the uterus. This spasm, according to Dr. Geoffroy, was localized at two points: first, at the junction of the stomach with the duodenum; second, at the point well down in the left iliac fossa, at the posterior part of this fossa at a point which is never any other than the ileo-pelvic angle of the colon, formed by the union of the fixed iliac part of the colon with the movable pelvic part. This spasm causes a permanent state of contraction, which deep palpation readily discloses. This peculiarity is for the writer so characteristic that when he encounters it in a woman who vomits or who has a cessation of the menses he diagnoses pregnancy. This contraction is encountered in subjects affected with various gastro-intestinal troubles, neurasthenia, the beginning of appendicitis, etc. It is a pathognomonic sign of reflex hyperæsthesia of the intestinal canal, of which the morbid symptoms vary from those produced by mild cardiac disturbances and simple nausea to uncontrollable vomiting. By using precautions to avoid pain in making gentle pressure, both slow and progressive with the ball and not with the extremity of the fingers, one can perceive at the point mentioned a series of

nodules, ordinarily very small, which are hard and resisting, but which become softened in proportion as the digital pressure is gentle, slow and progressive. There is a sensation of gas and of liquids under the fingers, with a slight gurgling, generally perceptible to both the physician and the patient. The induration ceases, the nodules disappear, and the discomfort that they have excited is replaced by a sensation of well being and an inclination to rest, which indicate that the time has come to suspend the treatment. In the first case in which the author applied this treatment, five or six seances were requisite to effect a complete cure. In general, two or three seances, sometimes only one, cause the vomiting to cease. It is useless to prolong the treatment in order to avoid a return of the trouble. The method is useful in all cases if properly applied, and is perfectly harmless.

PREVENTIVE TREATMENT OF OPHTHALMIA IN NEW BORN CHILDREN.

The rules for the prevention of the ailment are as simple in their application as they are satisfactory in their results, and may be epitomized as follows: (1) If a pregnant woman be known to suffer from gonorrhœa, every attempt should be made to cure the complaint before parturition. (2) In case the ailment persists, the vagina and external parts should be irrigated during labor with some antiseptic fluid, and this should be repeated from time to time if the stage of propulsion be slow. (3) Ater the child is born, but before the cord is cut, any secretion lodged about the lashes or lids should be carefully wiped away with wool, moistened with perchloride lotion. (4) After the cord is severed one or two drops of a two-per-cent. solution of silver nitrate should be run into the baby's eyes, held open for the purpose. (5) Clean water must be used for washing the head and face, which must on no account be touched with that employed for the bathing of the body. (6) Secondary inocculations from the lochia, etc., must be avoided by the exercise of common sense and cleanliness.—Dr. Sidney Stephenson, Medical Press and Circular, June 8th.

SYPHILIS AS A CAUSE OF ABORTION.

Dr. J. A. Ouimet (Medical Review, vol. xxxvi., No. 15, page 267) concludes: (1) Syphilis is a powerful cause of

abortion, the abortion being due to a lesion of the fœtus itself or its appendages. (2) It occurs mainly about the seventh month. The father, if alone syphilitic, can transmit the syphilis to the product of conception. The latter is more liable to occur the nearer the moment of conception is to the beginning of syphilis. (3) The mother may give birth to a syphilitic child while remaining free from syphilis. (4) When the father and mother are both syphilitic the child rarely escapes infection. (5) The mother, if syphilitic before pregnancy, is more liable to give birth to a healthy child the more ancient the syphilis. (6) The nearer the syphilis approaches the termination of pregnancy, the greater chance the child has to escape infection. (7) The child born of a syphilitic mother may come into the world presenting lesions manifestly syphilic, or be born apparently healthy and become syphilitic only after some months or even years. Syphilis imparts no particular characteristic to the course of confinement. Mercurial treatment should be instituted at the beginning of pregnancy.

ABOTION IN CANADA.

A discussion was recently held in a Montreal Anglican Church convention upon the low birth rate in Ontario, and the cause therefor was asserted to be the wide prevalence of criminal abortion and of the use of artificial means to prevent conception. The low birth rate may be due partly to the cause assigned by the ministers, but it is also associated with a very low marriage rate, which would seem to account for it in a measure.—Medical Record.

NAPOLEON AS SCHENCK'S PREDECESSOR.

Napoleon's opinion on the determination of sex was less prolix and more easily followed than the present theory of Dr. Schenck's, with which we are all familiar, if we may judge from a letter dated August 31, 1806, addressed to the Princess Augusta, the wife of Prince Eugene. In this epistle the Emperor advises his sister, who was then in an interesting condition, to take good care of herself, and adds: "Try not to have a daughter. I will give you a receipt to this end, but you may not believe in it; that is, drink water and wine daily." This receipt is simple and much easier to follow than Dr. Schenck's. It appears, however, that it is either

not infallible or else the Princess did not follow it, for she had a girl.—Le Nord Medical.

THE COLOR OF NEGRO CHILDREN WHEN BORN.

Pediatrics comments upon a recent discussion in France as to the color of newly born negro children. It is probable that scarcely one out of a million white laymen would, if asked this question, be able to answer it correctly. The large majority of the medical profession, too, are ignorant on the point. Not that it is a matter of great moment, but in these days when one's knowledge is expected to be absolutely accurate, it is satisfactory to have even the most minute details made clear. On the authority of Dr. Farabery, whose statement will doubtless be supported by many medical practitioners who have had experience in negro obstetrical practice, "the negro baby at the time of its birth is exactly the same color as its white brother, and it shows signs of color only after an interval usually of several days, but often extending to many weeks." Some little time ago, says an English journal, there was an exhibition in the Champ de Mars of a Soudanese village, the colony of which numbers several hundred persons as black as ever were born. An eminent French physician saw there an opportunity to settle this vexed question, and he thus expresses his deductions: "The negro baby comes into the world a tender pink color; the second day it is lilac; ten days afterward it is the color of tanned leather, and at fifteen days it is chocolate. The coloring matter in the case of the negro lies between the layers of the epidermis. This pigment is semi-fluid, or in the form of fine granulations; in the Indian it is red, and in the Mongolian yellow. It is influenced not only by sun and by climate, but by certain maladies and the negro changes in tint just as the white person does.

SECTION ON MEDICAL CHEMISTRY.

UNDER CHARGE OF J. M. KING, B.S., M.D.,

PROFESSOR OF CHEMISTRY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; CHEMIST TO STATE OF TENNESSEE.

ALBUMINURIA IN ITS RELATION TO LIFE INSURANCE.

Professor von Jaksch in his work on Clinical Diagnosis, furnishes two paragraphs which should stand constantly in the foreground in our investigations of applicants for life insurance.

He says: "Serum-albumen in notable quantity is never found in healthy urine. Its appearance is in all cases a morbid symptom of great importance." Again: "We are never warranted in inferring the existence of a renal affection or a nephritis, from the mere fact that the urine contains albumen."

The most serious condition which our urinalysis may indicate is that of renal albuminuria, which is due to a number of causes, some of which are conceded by all authorities, while others are still *sub judice.*

While it has been particularly learned that the most frequent cause is inflammatory and degenerative changes in the kidney structure, still it must be admitted that the quantity of albumen is no adequate index to the extent and severity of the kidney lesion. This is apparent in cases of contracted kidney where only a trace of albumen is usually found.

Among the admitted causes of albuminuria we find disturbances of the circulation, but it has been forcibly contended that this disturbance must extend to the vessels of the kidney. In our inquiry into life insurance cases we observe that heart diseases present many cases of persistent albumen in the urine.

In addressing ourselves to the second (quoted) paragraph from Jaksch. it may be predicated that albumen is no longer pathognomic of nephritis. This naturally brings us face to face with the terms "intermittent," "physiological or functional" and "accidental" albumen.

An instructive illustration of "intermittent" albuminuria was furnished in the well-known Aloe case, recently tried in

the State Circuit Court here. After examination and urinalysis, this applicant received policies from several life insurance companies. Several other life insurance companies declined him on account of albuminuria.

In his last illness he was found in a comatose condition, following suppression of urine. An exploratory incision was made, and elicited a diagnosis of so-called "horse-shoe kidney." The witnesses described the assured as a robust, healthy man. An interesting incident was developed in the testimony of the medical director of one of the contesting associations. He met the assured in Berlin, en route to Carlsbad. Subsequently, at the request of the directors of the association, he called upon the assured in St. Louis, for the purpose of inducing him to surrender his policy, as the directors had heard of his rejection by other companies. The assured consented, but the policy was not taken up and hence the company was later forced to face the inevitable and make a settlement.

Physiclogical or functional albuminuria is often noticed after the eating of much albuminous food, also after great mental or physical exertion. The latter point has become apparent to the wideawake agent, that the medical examiners are now frequently called to examine the applicant, say at 7 or 8 A. M. at the applicant's home, "as he is a very busy man and might disappoint the doctor if he called at his place of business."

Purdy claims that albuminuria in of 1-30 to 1-40 of one per cent. is not physiological and "accidental" albuminaria may come from parts of the urinary apparatus other than the kidney. In case albumin has been found on a first examination, the second examination might be strengthened by asking the questions adopted by a well-known company which insures "sub-standard" or under average lives. They are as follows:

1. When and how often was albumen discovered?
2. How often has it been found by urinalysis, and when?
3. How often not found, and when?
4. Does he rise at night to void urine?
5. Has there been any concurrent symptom of Bright's disease?

Under the latter heading many objective points might be inquired into, for instance: we may examine the skin as to

complexion, dryness, eczema, and tending to œdema of the eyelids, face and shins. The heart should be interrogated as to the second sound over the aortic cartilage, and over the *septum ventriculorum* and also as to hypertrophy and palpitation. It should be ascertained if there is hepatic hypertrophy. If the amount of urine passed in twenty-four hours can be ascertained, and a specimen of the mixed urine obtained, the quantitative test for urea would be a valuable addition to the report.—Frank Ring, M.D., in St. Louis Med. Gazette.

CLASS LETTER.

We are glad to see so many of the old boys back, and would be just as glad to see the host of new ones if we but knew them so well. As it is, we say with a sincere heart, welcome brothers—and sisters too. The number of our ladies is small at present, but there is every indication of it soon being augmented.

We have heard our new professors lecture during the month of September, and are deeply impressed by the thorough manner in which they handle their subjects. We anticipate a fine course of lectures this winter. The whole faculty has already won the hearts and ears of the new students, to say nothing of the enthusiasm and respect that they have inspired in the old ones. We never tire of speaking in the highest and most loyal terms of the Medical Department of the University of Nashville.

Mr. Wm. A. McClain, who attended lectnres for two years in St. Louis, is with us this year.

Mr. Jas. M. Britton has been practising in Scranton, Texas, for five years.

Mr. R. L. Eaton has been spending the summer in Sumner County, Tenn.

Mr. Wm. Kelly remained in the city during the summer and did considerable charity practice. This will help him in his studies this winter.

Miss Venie J. Lee spent part of the summer abroad.

Mr. J. Shirley Lowry has been practising with Dr. Gracey this summer.

Mr. A. E. Barrett, of Rockwall, Texas, has been practising in Sumner County for the last few months.

Mr. Frank B. DeWitt has been summoned home on account of death in his family.

Mrs. Mary C. Rudolph spent the summer in the city.

Mr. W. C. R. Ford has been practising for the last year in Lisbon, La.

Mr. T. E. Moore, of San Antonio, Texas, spent his vacation on the Gulf coast.

Miss Mary R. Baker spent the summer at her home in South Carolina.

Messrs. J. Fenton and Clyde Harland Trippett took their first two courses of lectures at the Baltimore Medical College.

Mr. Wm. J. Abel has been doing nothing this summer except having a good time.

Mr. Ledru W. Bayne was in the State Hospital in Vicksburg, Miss., this summer.

Mr. D. R. Gaines has been doing an extensive practice throughout Middle Georgia, also pulling teeth.

Mr. J. B. Seneker has just recovered from an attack of pleurisy.

Mr. E. L. Robertson has been practising at Barlow, Miss.

Mr. E. K. Herdman spent one month of his vacation in Denver, Col., and the remainder on Long Island.

Messrs. O'Leary, Smith and McClure, of Indiana, who took their former courses in Chicago, have matriculated with us.

Messrs. Clark and Adamson have come to us after taking their first year in St. Louis.

Messrs. Breedlove and Winston were in Louisville last year, but are now with us.

Welcome all! Before the term is finished you shall be most thoroughly imbued with the spirit of loyalty to your Alma Mater.

WM. JORDAN.

CLINICS HELD IN THE COLLEGE AMPITHEATRE, MEDICAL DEPARTMENT UNIVERSITY OF NASHVILLE—MONTH OF SEPTEMBER.

ABDOMINAL SURGERY—PROF. MCGANNON.

Reported By Dr. Hudson.

REMOVAL OF CANCER OF THE BREAST.—The patient before us comes through the courtesy of an old honored alumnus, Dr. Capps, of Livingston, Tenn. She is suffering with a tumor in her left breast which begun a year ago.

A tumor occurring in a woman of her age, 49 years, should at the outset arouse your suspicion as to malignancy. To the feel it is nodular, it is round in appearance, has reached quite a large size, and, as you see, the axillary glands are involved.

The patient being now anæsthetized by Mr. Jordan, a senior student, we will remove this soap poultice which was placed here last evening at the infirmary by my nurse. Before applying it the patient's breast and surrounding tissues were thoroughly scrubbed with brush, soap and warm water, and as a further precaution, we will be sure of asepsis by again using the brush, soap and water. The instruments and everything that is to be used in connection with the operation have been sterilized. My hands, as well as those of my assistants and nurse, have been thoroughly cleansed with soap and water. We are now ready to remove this breast. Our incision will extend well into the axillary space, which will be cleared of its glands. Now, since they are removed with the fascia, you can see the axillary artery pulsating beneath my fingers. In order to be sure of all the diseased tissues we will remove the fascia covering the pectoralis major muscle. You see the very little hemorrhage we are having is controlled by torsion and hot water. We have the growth as well as the glands of the axilla removed, so will proceed to close the wound. So much of the skin over the cancerous mass was diseased and required removal that it is with difficulty we approximate the edges of the opening. We can remedy this by dissecting the skin from the adjacent tissues, and sliding it. Silk worm gut will be used in closing the wound. We will

make a counter opening in the most dependent part of the wound, and insert a tube to drain the axillary space. This tube will be removed at the first dressing. After applying dressings the arm is fixed with Velpeau's bandage.

The patient was sent to Dr. McGannon's Infirmary, where she remained until the third day, and was then brought before the class, to teach the students how to remove and apply dressings. A week from the time of operation the dressings were again removed by one of the students, the stitches taken out, the wound having healed by first intention.

After this dressing the patient was allowed to return to her home.

Prof. McGannon complimented his assistants upon the aseptic precautions observed throughout the operatian.

OPERATION FOR APPENDICITIS.

Gentlemen: Through the kindness of Dr. Kimbrough we have this case before us this morning. While the patient is being anæsthetized by Mr. Brew, a senior student, and the parts prepared for operation, I will speak briefly of the causes, symptoms, clinical varieties, physical signs and prognosis of this disease. As to the causes, we will make two general divisions, predisposing and exciting. The predisposlng causes are the anatomic structure of the appendix, its poor blood supply, constipation, foreign bodies obstructing its lumen.

As to exciting causes there is but one, and that is invasion of the structures of the appendix by micro-organisms. The predisposing causes lower the vitality of the tissues, so that they cannot resist the attacks of these germs.

We recognize two clinical types of this diseas, acute and chronic. In the acute form the disease progresses beyond the mucous membrane, and gangrene or ulceration results; and in the chronic type the inflammation is limited, does not tend to invade all the appendiceal coats, and is less violent in its various characteristics. At first the symptoms of both types are the same, varying only in intensity.

The symptoms by which the disease is to be recognized are pain, tenderness and rigidity of the muscles over the site of the inflamed organs. Besides these three almost pathogomonic signs, vomiting, constipation, and temperature are minor symptoms. You should always consult the pulse, for a weak and rapid pulse is indicative of a grave attack.

Now, geutlemen, as the patient is prepared and under the anæsthetic (chloroform being used) we will make an incision

two inches long, one half way between anterior superior spine and the umbilicus. After reaching the abdominal cavity, we find an abscess fairly walled off by nature's efforts at repair, the contents of which are offensive to the smell, to which many of you who are near can testify.

The abscess now being emptied, we will search for the appendix, being cautious not to break down nature's fortifications. The appendix is firmly bound down by adhesions. After freeing these and lifting it out of the wound you are able to see the small perforation. We will now remove it; after tying it off we will turn the edges over the stump and sew them there. By so doing we will be sure of no further infection from this source. The general peritoneal cavity has not been entered, so we will close our wound. The dressing was applied and the patient sent home.

SURGERY—PROF. BROWER.

Reported by A. G. Nichol, M. D.

September 6, 1898.—Gentlemen: The first case, Wm. N—, white, male, age 53, I shall present this morning, is one of ununited fracture of the radius and ulnar. The patient was a member of the city fire department. During last February, while responding to an alarm, he fell from the hook and ladder truck, and a wheel passed over his forearm, crushing both bones at the junction of upper and middle third, and considerably lacerating the soft structures, the vessels being badly injured. The fracture was treated with splints and plaster of paris for a considerable length of time. The bones failed to unite and there formed a fistulous tract communicating with the seat of fracture, which was continually discharging. This patient underwent an operation for removal of necrosed bone, and for resetting the fracture. All dead bone was removed, and the external wound healed rapidly, but the fragments still failed to unite, a condition due, in all probability, to the poor circulation, the main vessels having been injured previously, and collateral circulation not having been well established. To-day you see that the cardinal symptoms of fracture are still in existence—deformity, preternatural nobility and crepitation. This man can use his arm to a limited extent, bnt still it is troublesome. An operation can be done which will result in good bony union. An incision made down to the seat of fracture, the ends of the bones

"freshened up" with a sharp bone curette, the ends of the bones approximated, and splints applied, we would expect a good result; still he can get on without an operation. A leather cuff, made to accurately fit over the seat of fracture, and laced tightly, would hold the bones steady, and give him comparatively good use of the arm.

The next case, Alex D—, age 45 years, carpenter, is one of transverse fracture of the patella. This injury occurred five weeks ago. The gentleman was driving in the country, and his horse becoming frightened, he jumped from the buggy, alighting upon his feet upon a pile of rock; the strong muscular action of the quadriceps extensor snapped the patella in two, drawing the upper fragment upward to the middle third of the thigh. The patient, upon attempting to walk, found that his leg "gave way." He was brought to his home and was seen by a physician about two hours afterward. The fragments were approximated and temporary dressings applied, consisting of a posterior splint and figure of eight bandage of the knee. The following morning a permanent dressing was applied, consisting of adhesive plaster strips, as you see them now, a figure of eight bandage of the knee and a long posterior splint extending from high up the thigh down to the ankle. This splint was well padded where it touched bony points, and was held in place by a reverse spiral bandage of leg and thigh. The union obtained in this case, as in most cases of this character, is fibrous. The further treatment of this case will consist of a leather brace, made to fit accurately, and extending for about five or six inches above and below the knee, two steel stays being placed in the back of the brace to prevent bending. This brace will be worn for about twelve months, keeping the leg in an extended position. The limb, at intervals, will be carried through passive motion, and we expect to have a good and useful limb.

September 13, 1898.—Gentlemen: We have a minor case this morning, Tom N—, white, age 20 years, one of circumsion. The patient came to the dispensary about ten days ago. Examination showed a single lesion upon the penis, just at crest of the corona; the prepuce was long and almost irretractable, and the mucus membrane inflamed. A dorsal incision was made, so as to be able to thoroughly cleanse the part. This has healed, and now the patient wishes to have the prepuce entirely removed. The patient being anæsthetized with A. C. E. mixture, we proceed to perform the opera-

tion. We prefer to leave as much of the mucous membrane as is convenient. The mucous membrane and integument are approximated with silk sutures and the wound dressed. [Wound healed in a week without pus.—A. G. N.]

August 20, 1898.—Gentlemen: The case, Wm. H—, male, colored, age 26, laborer, is one of vicious union of a fracture of the lower third of the fibula and tibia. You see that the limb has united almost at a right angle. The history this man gives is that thirteen years ago he was a stable boy on a Kentucky stock farm. His business was to exercise the horses. One morning, while alone, he was thrown from a horse and badly bruised and "broken up," his leg being broken and also his forearm. He lay where he fell, unconscious, for about two hours, when he was found and carried to his home. A physician was summoned, but did not arrive until twenty-four hours after the receipt of the injury.

The patient says that the physician dressed his wounds, and gave him good attention. This vicious union may have been due to the incompetence of the medical attendants, or it may be due to the patient himself. This class of patients is unsatisfactory to treat—they only do what suits them best. I have no doubt, gentlemen, but that the physician was competent, and treated the case properly, and that the boy did not like the restrictions put upon him. I expect he would get other boys to loosen his bandages and dressings, move around, get out of bed when ordered to remain quiet, and, in fact, suit his own pleasure, rather than that of his physician. The result we have here is, in all probability, due to his own carelessness, rather than that of his doctors. The other injury, gentlemen, is, as you see, at the elbow. He received this at the same time as he did the broken leg. He has a stiff elbow, due to callous thrown out around the elbow joint, preventing extension. When this fracture was dressed, the physician put it up at right angles, very properly, as he has more use of his right arm when in this position than when entirely straight. His arm is very little "in the way," and is of benefit to him, while were it straight it would be of little use to him, and a constant annoyance. You see, gentlemen, here at the elbow we have several scars. He says that up to a few years ago these were "running sores." He has had, in all probability, necrosis of the bones, and nature has separated the dead bone from the living, and the wound has healed. We can operate on this man and give him a good leg. These bones are just beneath the skin and are easily

reached. Cut down upon the ends of the fragments, remove the ends of the bone, freshen them up and reset them and put on plaster of paris to unmobilize the part. The external wound would heal rapidly, and bones would unite, giving him, instead of this horribly deformed limb, one that would be straight and useful. We would not interfere with the arm, as there is no benefit to be derived from an operation upon this part.

September 20, 1898.—Gentlemen: This morning we will have an exhibition clinic. The cases to be presented are cases of hernia. A hernia, as you know, is a protusion of a viscus from its normal cavity through an abnormal opening. Usually speaking, hernia is a protusion of a viscus from the abdominal cavity. We find that inguinial hernia is the most common, 80 per cent. of all hernias being of the inguinal variety. You have external or indirect, and internal or direct, varieties of inguinal hernia. The external or indirect inguinal hernia passes from the abdominal cavity through the internal abdominal ring, the spermatic canal and external abdominal ring into the scrotum. Its course is on the outer side of or external to the deep epigastric artery. The internal or direct inguinal hernia passes directly through the abdominal wall to the external abdominal ring, and thence into the scrotum. The course of the direct variety is internal to the deep epigastric artery. If the hernia is one of intestine alone it is called an enterocele; if mesentery alone, it is called an epiplocele; if both, an eutero-epiplocele. If the hernia is incomplete it is called a bubonocele, from its resemblance to a bubo, or enlarged inguinal gland. In this first case, gentlemen, you see a ventral hernia, the viscus protruding from the space between the recti muscles—this is a weak point in the abdominal wall. This hernia is of the acquired variety. We will get this patient to explain how he was injured. He says that, having fallen from a moving train and alighting upon his feet upon a parallel track, to escape another train, he leaped to the side of the track and fell in a ditch. He experienced some pain about the abdomen, but paid little attention to it. Soon afterward a tumor began to appear, and gradually enlarged till it is as you see now. When he fell he strained and weakened this portion of the abdominal wall, and he now has a hernia at this weakened point. He has also an inguinal hernia of the indirect variety, which you see. This is a reducible hernia. Flex the legs upon the thighs and thighs upon the abdomen, to relax the abdominal

muscles, and gently manipulate the part, allowing the portion which last came out to go in first. After a little gentle traction and manipulation the gut will rush back into the abdominal cavity with a gurgle. Now you see the hernia is reduced. Upon telling the patient to strain you see the hernia reappear. You must differentiate hernia from varicocele and hydrocele. In varicocele you can feel an enlargement which feels like a bunch of earth worms. When the patient is lying down the veins empty themselves and the tumor disappears. Hernia may reduce itself under some conditions; place your finger over the external abdominal ring and allow the patient to stand; you find in varicocele that the tumor reappears; the hernia does not. Upon coughing you get a distinct impulse in hernia; in varicocele you do not. You would differentiate hernia from hydrocele. Hydrocele is slow in formation, translucent, gradually extending from below upward, no impulse on coughing. Hydrocele is dull upon percussion, hernia tympantic.

The next case is one of complete hernia on right side and incomplete hernia on left. You see same characteristic features in the complete hernia as you have seen in the other case. The incomplete hernia presents an entirely different aspect. You see a tumor, which is easily reduceable upon pressure. You must differentiate this condition from bubo.

The history and ability to reduce tumor would lead you to an easy diagnosis.

The third case is one of inguinal hernia, similar to the two previous cases. The patients were examined by a number of students and the class dismissed.

MEDICINE—PROF. WOOD.

Reported by James Brew, Jr., Senior Class.

J. W., age 35, colored, laborer, single, complains of "bad cold, with cough." Family history points strongly to tubercular disease. Up to three months ago this man was quite well, but at that time he contracted a bad cold which has never left him. He has cough, worse in the morning on rising, often followed by retching or vomiting, and accompanied by yellowish expectoration; stabbing pains are sometimes felt in the left side of the chest, night sweats are frequent, his appetite is poor, and he has lost flesh and strength during the last three months—has had to give up work.

Patient is anæmic and emaciated, his muscles are soft, and slight incurvation of finger nails and clubbing of ends of fingers is seen; temperature 100½, pulse 130. There is some flattening noticed beneath left clavicle and deficient expansion on the left side. Marked dulness is present over the left supra—and infraclavicular regionsi n front, over the apex of the lung, and over the left lower lobe behind. Respiration is harsh, almost bronchial, with prolonged expiration over these areas; no rales.

Diagnosis: Tubercular consolidation in left lung.

Treatment: Creosote, Cooline oil, egg-noggs and good nourishing diet, with sunlight, fresh air and moderate exercise.

A. W., widow, colored, age 54, cook, complains of "shortness of breath." Family history negative; patient always healthy up to about two months ago, when she first noticed the shortness of breath. This has continued. gradually getting worse; is always increased by exertion, especially by going up stairs; is weak and easily tired, otherwise healthy; no cough, no pain in chest, no œderna. Five years ago patient had rheumatism. On examination lungs are normal, heart apex in fifth space in nipple line; slight increase in cardiac dulness; a soft blowing murmur is heard with greatest intensity at the apex, transmitted round the left axilla and heard beneath left scapula. This is called a mitral regurgitant murmur, and indicates regurgitation through the mitral orifice. A low, harsh, almost whistling murmur is heard with greatest intensity over sternum, opposite third rib, and transmitted both up and down; it is systolic in rhythm and is evidently due to aortic obstruction. hence called an aortic obstructive murmur. The dyspuora, on exertion, means a loss of compensation on the part of the heart muscle, therefore a cardiac tonic, digitalis, will be given in moderate doses of m x-xv., four times a day, with good food and rest, which is one of the most important indications.

H. H., colored, age 24, porter in drug-house, single. Patient complains of pain and soreness in chest. Family history good—no tubercular history; had syphilis six years ago, otherwise healthy up to three and one-half months ago, when present attack commenced, though patient has never given up work. Pain described as a soreness which is continuous; not influenced by ingestion of food; by respiration or by muscular movements; not worse at night; localized to a spot

the size of a half dollar over the middle sternum. Patient has no cough or dyspnoea; nutrition good; no loss of weight; temperature normal; examination of heart and lungs negative. Attention was drawn to the points in the case distinguishing it from diseases of the lungs, heart, stomach, and from neuralgia and myalgia.

Diagnosis: Syphilitic disease.

Treatment: Potassium Iodid in full doses.

C. G., age 18, female, single, brought by her mother, who says that since she was twelve years of age she has suffered from "spells or fits," which for three years were mild and unattended by the loss of consciousness. For the last three years she has had the fits more frequently, sometimes every day, or twice in one day, and they have also become more severe. In the mild ones she complained of a fullness and burning in the pit of the stomach, rising up to the neck like a lump, and followed by dizziness for a moment or two, and this followed by headache and drowsiness. In the severe "spells" she complains of the same burning sensation in the pit of the stomach, rising up to the neck, but then she utters a peculiar sound and immediately becomes unconscious, the limbs stiffening out and the face becoming pale. In a short time she begins to jerk all over, turns black in the face and foams at the mouth, but does not bite her tongue. After the movements cease she falls into a deep sleep from which she cannot be roused for about an hour. During the fit she frequently passes urine involuntarily. Patient has had measles, mumps and whooping cough in childhood, has menstruated but once, very scantily, one year ago; no injury to head; family history good; free from nervous disorders; no alcoholic history in parents.

This case was considered to be one of epilepsy, and attention was drawn to the following facts: The date of onset, 12 years of age, about the time of puberty, and the amenorrhœa. The first fits were mild, were unattended by loss of consciousness or convulsive movements and correspond to the *petit mal* of the French writers. The severe spells were regular convulsions, with loss of consciousness, and correspond to the *grand mal.* The burning in the pit of the stomach is the so-called *aura*, and is to the patient a warning of the oncoming fit. The stupor and fit following the attack was also

dwelt upon, as likewise the possibility of suicidal or homicidal tendencies in a patient at that time.

Treatment advised was avoidance of tea, coffee, alcohol and tobacco, the use of very little meat, and full doses of the bromides, preferably the salts of potassium and sodium or ammonium combined; with or without antipyrin.

Annie W—, age 9, white, female. The patient presented was suffering from a disease common to children, chorea. The first attack occurred when the patient was four years of age; preceding this attack the child had been a sufferer from rheumatism. Under treatment the choreic symptom subsided and were totally absent for a period of about eighteen months. Patient then had quite a serious attack of scarlet fever, and during convalescence was frightened by a person suffering from chorea. This brought on a second attack, which has increased in violence, and patient had to give up school. Patient is very emotional, and particularly so when being noticed. The right side is afflicted more than the left. Mitral regurgitant murmur is heard at apex of heart, which is transmitted toward the axilla.

Treatment: Fowler's solution gtt. v. t i. d., and increasing gtt. i. a day until physiological effect of drug is noticed. When this stage is reached discontinue use of drug for a few days, and again resume its use in same dose given before discontinued.

SOCIETY MEETINGS.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Nashville entertains this distinguished body, October 11th to the 14th.

The Committee of Arrangements is as follows: Duncan Eve, chairman; W. D. Haggard, Jr., secretary; J. A. Witherspoon, S. S. Crockett, Paul F. Eve, G. C. Savage and R. E. Fort.

Committee on Reception—L. B. Graddy, chairman; W. A. Atchison, W. L. Dudley, W. D. Haggard, Jr., James B. Stephens, W. F. Glenn, W. C. Bilbro.

Committee on Entertainment—J. Y. Crawford, chairman; W. G. Ewing, A. B. Cooke, Larkin Smith, J. W. Handly.

Committee on Exhibits—Deering J. Roberts.

The sessions will be held in the State Capitol in the Hall of Representatives, and will be general, as at this meeting there will be no separate section work.

On the programme we find the names of many of America's brightest lights in the medical firmament, and the discussions promise to be of great interest.

In a social way also the visitors will be elaborately entertained. A banquet on Tuesday night, a reception in the Maxwell House parlors on Wednesday night, and an entertainment by the Wednesday Morning Musical Club on Thursday night will be the features of the social side.

The Senate chamber will be devoted to exhibits, and we understand that the entire space has been taken.

Dr. Henry E. Tuley, Louisville, Ky., is the secretary.

MIDDLE TENNESSEE MEDICAL ASSOCIATION.

This society will hold its ninth regular (semi-annual) meeting in Nashville on November 17 and 18.

President Ridings has appointed the following committees:

Arrangements—Drs. McGannon, G. C. Savage, T. H. Wood, A. B. Cooke, J. A. Witherspoon, G. W. Hale, and W. D. Haggard, Jr., all of Nashville.

Essays—Drs. Paul Clements, George H. Price and John S. Cain, of Nashville; W. C. Bilbro, of Murfreesboro, and C. M. Lovell, of Dickson.

Complaints and Offenses—Drs. J. B. Cowan, Tullahoma; A. B. Ramsey, McMinnville; Robert Pillow, Columbia; C. C. Abernathy, Pulaski, and J. B. Murfree, Sr., Murfreesboro.

Credentials—Drs. S. T. Hardison, Lewisburg; W. D. Haggard, Sr., Nashville, and W. K. Sheddan, Williamsport.

The attendance at the meetings of this society has heretofore been large and the discussions of the highest practical value. Every regular physician in Middle Tennessee should become a member The provisional programme will be issued about October 20, so that intending writers should send the titles of their papers to the secretary, Dr. Paul Clements, Nashville, before that date.

The annual session of the Southern Surgical and Gynecological Association will be held in Memphis, Tenn., on the 8th, 9th and 10th days of November next. Already papers have been promised by many prominent men from different parts of the country. The meeting promises to be in every way a success.

The tenth annual meeting of the Tri-State Medical Society of Alabama, Georgia and Tennessee will be held in Birmingham, Tuesday, Wednesday and Thursday, October 25, 26 and 27. The prospects are for a large and successful meeting. The following is a partial list of papers:

President's Address—J. A. Goggans, Alexander City, Ala.

Modern Treatment of Corneal Opacities, with report of cases—M. L. Heffelfinger, Huntsville, Ala.

Keratitis—A. A. Greene, Anniston, Ala.

The Surgical Treatment of Trachoma—S. Kirkpatrick, Selma, Ala.

Purulent Opthalmia; a New Method of Treatment—Frank Trester Smith, Chattanooga, Tenn.

Color Blindness—H. S. Persons, Montgomery, Ala.

Eye Affections in General Diseases—J. L. Minor, Memphis, Tenn.

Treatment of Affections of the Singing Voice—Richmond McKinney, Memphis, Tenn.

Syphilis of the Nose—S. L. Ledbetter, Birmingham, Ala.

Diphtheria—H. L. Appleton, Cedar Bluff, Ala.

Diphtheria—W. D. Travis, Covington, Ga.

A Case of Addison's Disease Treated with Adrenal Extract—H. A. Moody, Baily Springs, Ala.

Suggestion in the Healing Art—E. T. Camp, Gadsden, Ala.

Chorea—S. W. Fain, Chattanooga, Tenn.

Neurasthenia and its Treatment—Chas. E. J. Smith, Atlanta, Ga.

Recent Advances in the Treatment of Gonorrhoea—F. Goodwin Dubose, Florence, Ala.

The Treatment of Intestinal Obstruction and Constipation by Electric Injections—R. P. Johnson, Oak Park, Ill.

Perfection of the Aseptic Technique—W. F. Westmoreland, Atlanta.

Curettage of the Uterus—John G. Clay, Thompson's Station, Tenn.

Extirpation of the Pancreas—H. Berlin, Chattanooga, Tenn.

A Few Remarks on Bone Surgery—M. Goltman, Memphis, Tenn.

A Simple Operation for Hemorrhoids without Injections, Ligature, Clamp, Cautery or Crushing—R. R. Kime, Atlanta, Ga.

Peritonitis; report of a case—D. S. Middleton, Rising Fawn, Ga.

Urinary Calculus—Supra Pubic Cystotomy; report of a case—James S. White, Franklin, Tenn.

Supra Vaginal vs. Vaginal Hysterectomy—Clement Ritter, Selma, Ala.

Extra Peritoneal Shortening of the Round Ligaments in the Correction of Retro-displacemets of the Uterus—M. C. McGannon, Nashville, Tenn.

Acute Anterior Poliomyelitis—E. D. Bondurant, Mobile, Ala.

Early Diagnosis of Cancer of the Uterus—Thos. S. Cullen, Johns Hopkins Hospital, Baltimore.

Surgery of Typhoid—Harvey W. Cushing, Johns Hopkins Hospital.

Membranous Colitis—Louis Wm. Johnson, Tuskegee, Ala.

Organic Disease of Mitral Valve—J. T. Seay, Fern Bank, Ala.

Lobar Pneumonia, with treatment—J. U. Ray, Jr., Blocton, Ala.

Fevers of Alabama—Charles McAlpine Watson, Florence, Ala.

Some Fevers of St. Clair Co., Ala.—Eugene P. Cason, Ragland, Ala.

A Fever Indigneous to the Cumberland Plateau—N. H. French, Wartburg, Tenn.

Continued Malarial Fever of Southeast Alabama—Wm. R. Belcher Daleville, Ala.

Malaria—W. H. Bell, Oxford, Ala.

Some Malarial Manifestations—J. N. Pearson, Florence, Ala.

Typhoid Fever—E. A. Matthews, Clanton, Ala.

Typhoid Fever—E. Eugene Mitchell, Oneonta, Ala.

Typhoid Fever—S. W. Welch, Alpine, Ala.

Typhoid Fever; report of cases—C. L. Guice, Harris, Ala.

The Treatment of Typhoid Fever—Julia Jones, Rockford, Ala.

A Rational Treatment for Typhoid Fever—Gaius R. Johnson, Marion, Ala.

Typhoid Fever—G. Manning Ellis, Chattanooga.

Typhoid Fever—W. H. Moon, Goodwater, Ala.

Some Interesting Cases of Laparotomy—C. Hamilton, Rome, Ga.

Laparotomy for Gunshot Wound of Abdomen; report of case with unique Features—R. E. Fort, Nashville, Tenn.

Puerperal Eclampsia—Thomas F. Moore, Linwood Ala.

Some of the Emergencies of the Lying In State—David A. Morton, Boaz, Ala.

Puerperal Septicemia—Robt. B. Stapleton, Dotham, Ala.

A Few Remarks on the Treatment of Puerperal Fever, with illustrative cases—J. C. Johnson, Glen Allen, Ala.

Hypodermic Medication—E. P. Nicholson, Valley Head, Ala.

Communal Hygiene—Ernest B. Sangree, Nashville, Tenn.

Two Cases of Surgery—S. W. Purifoy, Lownesboro, Ala.

Functional Impotence—W. H. Mangum, Georgiana, Ala.

Syphilis of the Nervous System, with report of cases—W. J. Love, LaFayette, Ala.

Disobedience to the Mandates of Nature is Treachery of a Suicidal Tendency—P. G. Trent, Sr., Roanoke, Ala.

Animal Heat—W. S. Edwards, Gadsden, Ala.

Two Interesting Cases of Sun Stroke—J. W. Ash, Springville, Ala.

A Case of Complete Obstruction of the Common Bile Duct by a Floating Gall Stone. Operation; Immediate Recovery; and Restoration to Perfect Health. A Short Study of Gall Stones in the Common Ducts—W. H. Hudson, LaFayette, Ala.

Scarlet Fever and its Sequelae—Jno. Thos. Chapman, Selma, Ala.

Smallpox—Frank Prince, Bessemer, Ala.

Smallpox in Alabama—G. B. Wimberly, Reform, Ala.

The Treatment of Burns on Modern Surgical Principles—C. B. Jackson, Horse Creek, Ala.

The Treatment of Fractures by Plaster Paris Bandage—M. B. Cameron, Sumpterville, Ala.

Some Suggestions in the Treatment of Typhoid Fever—J. C. LeGrand, Birmingham, Ala.

Typhoid Fever—J. D. Gibson, Birmingham, Ala.

Ectopic Gestation—W. E. B. Davis, Birmingham, Ala.

The Management of the Puerperal State—C. C. Jones, East Lake, Ala.

Fracture of the Spine; presentation of two cases—B. G. Copeland, Birmingham, Ala.

Abortion—Emmett K. Moon, Bridgeport, Ala.

Abnormal Cardiac Phenomena; their Differentiation and Significance—R. M. Cunningham, Pratt City, Ala.

Conservative Gynecology per Rational Medication—R. H. Hayes, Union Springs, Ala.

BOOKS AND PAMPHLETS RECEIVED.

THE PRACTICE OF MEDICINE. By Horatio C. Wood, A. M., M.D., L.L.D., Professor of Therapeutics and Clinical Professor of Nervous Diseases in the University of Pennsylvania; member of the National Academy of Science; and Reginald H. Fitz, A.M., M.D., Hersey Professor of the Theory and Practice of Physic in Harvard University; visiting physician to the Massachusetts General Hospital. Complete in one volume of about 1100 pages. Price, cloth, $6; sheep, $7; half Russia, $7.50; Philadelphia: J. B. Lippincott Company, 1898.

While many really good works upon the practice of medicine are before the profession, it is not too much to say that this treatise by Dr. Wood and Dr. Fitz will at least bear favorable comparison with any of its contemporaries. The book is well written and easily read and comprehended. The sections on Pathology are scientific and up to date, the description of symptoms beautifully clear and the therapeutics just what would be expected from such a renowned pharmacologist and therapeutist as Dr. Wood.

ATLAS OF METHODS OF CLINICAL INVESTIGATION, WITH AN EPITOME OF CLINICAL DIAGNOSIS. By Dr. Christfield Jakob, formerly first assistant in the Medical Clinic at Erlanger. Edited by Augustus A. Eshner, M.D., Professor of Clinical Medicine in the Philadelphia Polyclinic; Physician to the Philadelphia Hospital, etc. Sixty-eight colored plates. Cloth, $3 net. Philadelphia: W. B. Saunders, 1898.

This German Atlas, which has been translated by Dr. A. A. Eshner is well adapted to the needs of the student and general practioner of Medicine. The illustrations are clear, and with few exceptions are not too highly colored. Clinical microscopy now occupies an increasingly important place among the methods of clinical investigation, and in this work it is treated in a clear and concise manner and beautifully illustrated.

MEDICAL DIAGNOSIS. By Dr. Oswald Vierordt, Professor of Medicine at the University of Heidelberg. Translated by Francis H. Stuart, A.M., M.D. Fourth American edition from the fifth German. Revised and enlarged. In one royal octavo volume of 600 pages, 194 wood cuts, many of which

are in colors. Price, cloth, $4 net; sheep or half morocco, $5 net, Philadelphia: W. B. Saunders, 1898.

That this work has reached a fourth American edition is an evidence of the favor with which it has been received by the profession. It is a clinical work, clear, comprensive and accurate, and one of the best of its kind for the advanced student. The chapters on digestive and nervous diseases are very thorough, while the whole book is full of valuable information.

THE PRINCIPLES AND PRACTICE OF MEDICINE. By William Osler, M. D., Fellow of the Royal Society; Fellow of the Royal College of Physicians, London; Professor of Medicine in the Johns Hopkins University, and Physician-in-chief to the Johns Hopkins Hospital, Baltimore, etc. Third edition. New York. D. Appleton & Co. 1898.

This edition has been wholly recast, many articles having been entirely rewritten, or are new. The whole work has been rearranged and much new matter has been incorporated, bringing it right up to date. The book fully sustains the reputation of the author; it is clear, concise and thoroughly scientific, and while a little more attention might well be paid to therapeutics, it is one of the best allround works on Practice of Medicine for the student of to-day.

THE PRACTICE OF MEDICINE. By James M. Anders, M. D., Ph.G., LL.D., Professor of the Practice of Medicine and Clinical Medicine in the Medico-Chirurgical College, Philadelphia; attending physician to the Medico-Chirurgical and Samaritan Hospitals, Philadelphia, etc. Illustrated. Second edition. In one octavo volume of 1287 pages. Price, cloth, $5.50 net; sheep or half morocco, $6.50 net. Philadelphia. W. L. Saunders, 1898.

An excellent work, well arranged, well indexed and practical. As the author states, the historic development of the subject has been either omitted or given but briefly, making the work less burdensome and more practical. Contrary to the usual custom, the section on the pathology of the various diseases is taken up immediately after the definition and before the etiology. Whether this is an advantage is open to doubt, as the student must not consider the pathology as separate from the symptomatology, but "must ever aim to associate the clinical symptoms with the morbid lesion." The diagnostic tables throughout the work form a useful and special feature.

OBITUARY.

DR. BENJAMIN FREDERICK DUGGAN.

Dr. Benjamin Frederick Duggan, who died at his home in Unionville, Tenn., on March 1, 1898. was one of the early graduates of the Medical Department of the University of Nashville, and was one of her sons of note.

Born in North Carolina in 1821, and left orphaned when about six years old, he was entirely deprived of educational advantages. Serving an apprenticeship at the tailor's trade, he set up for himself at Beech Grove, Tenn., in his seventeenth or eighteenth year. In 1838, though scarcely more than a boy, he was married to Nancy A. Elliott, daughter of the Rev. Samuel Elliott. At the time of his marriage he could neither read nor write, but soon learned, with the assistance of his wife, and became thereafter a hard student.

Some time afterward he was licensed as a minister by the conference of the M. E. Church, and later received the degree of Doctor of Divinity from the Western Maryland College.

In 1853 he entered upon the study of medicine, receiving his medical education in the Medical Department, University of Nashville. From that time until his death (except during the term of his service as a regimental surgeon in the Confederate army), he resided in Unionville, Tenn., exercising the functions both of minister and physician, and engaging the respect and confidence of a wide circle of acquaintances. Such lives as his are indeed an honor to the profession and to the institution which held him as a son, and might well be emulated by all to whom the knowledge of his example comes. Of five children the only survivor is Dr. S. S. Duggan, also of Unionville.

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THE CAUSES AND TREATMENT OF GANGRENE

BY M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

Because some confusion has arisen in the use of the word gangrene, I desire to state it is my intention to apply the term only to death occurring in some part of the surface of the body.

To speak intelligently of the course and treatment of gangrene, it will be necessary for me to mention at least some of the causes of this diseased condition. Broadly speaking, gangrene may result from traumatism or from the application of chemicals; it may be due to excessive cold or heat, or to the action of bacteria; but by far the most common causes are those that interfere with the blood supply to the various parts of the body.

Of these I shall mention arterial sclerosis, thrombus, embolus and obliterating endarteritis, because their existance as etiological factors in the production of gangrene must influence, to a large extent, the line of treatment to be adopted in any given case.

Gangrene is divided by most authors into several forms, the chief of which are dry gangrene, senile gangrene, diabetic gangrene, moist gangrene, traumatic gangrene, symmetrical

*Read before the Nashville Academy of Medicine.

gangrene; but these terms serve no other purpose than to express either a part of the clinical picture presented by the disease in an individual case, or to convey to the mind an etiological factor in its production.

Gangrene, or local death, is the same in all cases as far as its effects are concerned. Different cases, however, present different degrees of severity and follow different courses.

Endarteritis, thrombus and atheroma occur usually in persons past fifty years of age; hence, when these arterial diseases in persons who have reached that time of life cause death of a part by shutting off its blood supply, the name senile gangrene seems appropriate, and expresses one phase of the clinical picture presented by the case.

Then, again, when the arterial supply is stopped and the veins become emptied because they are not interfered with, the dead part dries up, and thus is produced that form of necrosis termed dry gangrene. The name expresses another shade in the clinical picture. When thus produced both are practically the same kind of local death.

In these cases of impaired circulation a very small amount of inflammatory action may serve as the initial point in the disease. The first case I ever saw started from a wound made by cutting too deeply into a corn on the small toe. The patient was a man 74 years of age. The course of the disease in this case was typical. There was at first only some redness and swelling of the toe accompanied by considerable pain. In a short time the swelling increased, the redness deepened, until after a few days the part became black, shrunken and hard. There was a more or less diffused line of redness marking the inflammatory zone between the dead and living tissues at the base of the toe.

In favorable cases the line of demarcation continues, and nature or the surgeon amputates the offending and useless part; but often the decomposition going on at the line of demarcation so affects the nutrition of the adjacent tissues that the gangrenous process spreads to the surrounding parts and even threatens the life of the individual. Dry gangrene may occur in young people as a result of prolonged use of ergot.

TREATMENT.

If the disease affects only a small part, as, for example, one toe, and if nature shows a tendency to form a well marked line of separation between the diseased and healthy tissues, a dry antiseptic dressing is at first the only local treatment

necessary; later, amputation of the part should be done. Tonics and stimulants should be administered.

Should the gangrenous process extend so that the foot becomes involved, amputation should bo resorted to without delay. The question then arises, at what point should the limb be removed? In most of the cases treated on the expectant plan and which have survived long enough for nature to demonstrate her site of selection for operation, the line of demarcation has been at the befurcation of the Poplitial artery, thus showing that both tibials were the subject of arteric sclerosis throughout their whole extent. These cases then demand removal of the leg in its lower third.

Diabetic gangrene occurs usually in old persons who have diseased conditions of their arteries (arterial sclerosis), hence this form of the disease should receive the same treatment as advised for the senile form just described. The glycosuria does not produce the disease, but the diabetic condition makes these patients poor subjects for surgical procedures. It, however, by no means contra indicates operation, as was at one time taught. In twenty-seven cases reported of gangrene in diabetic subjects, in which amputation was made above the knee, nineteen were cured, while eight died of diabetic coma, the wound, however, playing no part in the deaths.

Moist gangrene may occur in the aged from the same causes that produce the dry and senile forms if the course of the disease is very rapid. Its usual cause, however, is some form of traumatism that suddenly shuts off the blood supply, as a gunshot wound or a severe crushing injury.

There are but few of us who have had much to do with railroad surgery who have not seen distressing examples of this form of the disease. To describe the course of moist gangrene, I will relate the details of a case that came under my care a few years ago. The patient was an Italian who, while engaged at work on the construction train of a railway, had his foot caught by a piece of falling timber. When he was brought into the hospital, examination revealed slight abrasion of the skin about the ankle and over the dorsum of the foot. There was some ecchymosis, slight swelling and coldness about the extremity. The patient complained of considerable pain; he could move his toes, though he did not move the ankle joint. There was no fracture; pulsation could not be detected between the internal malleolus or on the dorsum of the foot. Within forty-eight hours the cold-

ness had increased, the foot had very much enlarged, the tissues were purple and soft and without feeling. The toes and lower part of the foot were darkening, while about the ankle there was a very distinct redening. In tweuty-four hours more the skin over the foot was blistered; it had deepened in its discoloration; the swelling and redness about the ankle and lower part of the leg had very much increased, and the patient showed by elevation of temperature, chills and sweating, that septic poisoning was going on. Amputation was done below the knee, and the patient recovered.

TREATMENT OF MOIST GANGRENE.

The indications are to support the vital forces and get rid of the dying tissues. If a large vessel is obliterated the collateral circulation should be encouraged by elevating the limb and surrounding it with artificial heat. As soon as it is certain that the part is dead and that operation may be done with safety, amputation should be resorted to.

Delay of even a few hours in some cases of moist gangrene, so violent is the inflammatory process and so rapid is its spread, may lose the patient his life. Traumatic spreading gangrene is a term applied to those severe types of this disease. Alcohol, quinine, strychnia and nutritious food are essential in the treatment of all these cases. Morphia may be necessary to relieve pain.

Gangrene from excessive cold is not often seen in this sunny South land, but in Canada it is quite common. While there I saw many cases. The effect of this is to cause constriction of the arterioles so that the blood is prevented from entering the tissues. When the application is long continued death results.

At times, when the exposure to the cold has not been sufficient to cause death, too sudden application of heat dilates the vessels and produces such an intense congestion that gangrene follows. In northern countries where freezing is very common, the inhabitants, by experience, have learned to treat the condition by friction while the patient is still in a cold atmosphere.

Gangrene due to this cause may occur at any time of life. It is usually dry; a line of demarcation is early established, at which nature or the surgeon performs amputation. The early treatment consists in applying a dry warm antiseptic dressing to the injured part.

Hospital gangrene, which is due to microbic infection of

wounds or injuries, is, fortunately, now rarely seen. Some of you will, no doubt, recall cases that occurred in your earlier years of practice; but the advance in the science of medicine has wiped this once dreaded scourge to surgical work out of existence.

The onset of the disease is sudden, following some local injury or operation. The lips of the wound become covered with greyish sloughs, which leave behind them deep ulcers; the tissues become thick and brawny, and exude an offensive sanious fluid. Profound constitutional symptoms set in, and death is often early.

Treatment is removal from close wards to a large, airy room or tent; give stimulants, heart tonics and nutritious foods; locally apply antiseptic dressings to the wounds, and as soon as possible remove the dead tissues.

Symmetrical gangrene (Raynaud's disease) is a rare form of this affection. It is characterized by absence of arterial disease and by the fact that it occurs in the two halves of the body at the same time. It is a dry form of gangrene, yet it occurs, as a rule, in young persons. The parts usually attacked are those that are exposed, as the fingers and toes, the nose and the ears. I have encountered but two cases, both of which were slow in their course.

The pictures they presented were fairly characteristic. The first I saw in Canada. The patient was a woman of about forty years of age, who, on the approach of winter, suffered with attacks of coldness and numbness in all the fingers of both hands. At first they became blanched, and then, in a short time, cyanotic. Pressure or friction would force the blood from them temporarily, but the cyanosis would not disappear. There was considerable pain. In a short time blebs formed about the fingers, and in a few days these blisters would break and leave a more or less superficial ulcer, which readily healed. The fingers never seemed quite healthy; they lacked in vitality and were shrunken in appearance.

The other case came to me a year ago. She presented many of the symptoms of the case I have just detailed. There was the same history of attacks of coldness and numbness about the ends of the fingers, the same cyanosis, but without blistering except about the subungueal spaces. The disease had continued for two years, and the nails were all much deformed. The attacks were associated with menstru-

ation, coming on at the same time that the period was due. Menstruation was scanty.

Treatment: The disease seems to be one of nervous origin, and occurs in women of low vitality. The indications then are to improve the general health. Iron, arsenic, quinine, manganese, good food, sunlight, fresh air and regular habits are all indicated. If necrosis has occured the parts should be dressed antiseptically. If the skin has not been broken massage and the application of stimulating ointments, as Hy. ox. flav., grs. 10 to oz. 1 of lanolin, are of value.

Attention has been called to the fact that gangrene has resulted from dressings, moistened with solutions of carbolic acid, being allowed to remain long in contact with the skin. I mention it only as a warning. When such a moist dressing is applied to a finger or a toe, the water evaporates and leaves the acid in a concentrated form in contact with the skin, and necrosis may result.

I desire to call attention to one more, though rare, cause of gangrene, and I do this because the honor is due Dr. John M. Bass, a member of this society, of reporting at least one of the few cases observed in this country. Ainhum is a disease that begins as a fissure at the under side of the toe and gradually encircles it, cutting deeper and deeper until the toe is destroyed. Thus it at times produces gangrane. The treatment is amputation.

NOTES ON THE CAUSE AND PREVENTION OF MALARIA.

BY F. B. HAMILTON, M.D., JACKSON, TENN.

In the discussion of the causes and prevention of malaria, I do not propose to say much about what others have said, nor do I claim any originality in the opinion set forth, but merely to state some facts that have come under my observation, as well as to give some rational method of prevention.

When my father moved to this county from Davidson County, Tenn., we found that nearly everybody in this county had chills. Everybody thought that it was from clearing up the lands and exposing large areas to the hot sun, but when I think of it now I can give a better reason. At that time everybody built near a spring and all drank spring water. Of course, I knew nothing of the cause of malaria at that time, and, in fact, it is only within the last few years that I have paid any attention to its causes. I will state a few of the many causes that have come under my observation.

A few years ago a Mr. C. came to me for a prescription for chills. I asked him about his water supply. He said he drank from a well seventy-five feet deep. I asked him if any others of his family had the fever. He said no. I then asked him if he did not drink from a pool while at work. He said that he had. I gave him quinine to break his fever, and instructed him to drink only from his well, since which time he has carried out my instructions and has had no chills.

Another gentleman who resides in our city came to me a short time ago and asked for a prescription for chills. I asked him about his drinking water. He said he drank hydrant water. I asked him if he did not drink out of a spring on his farm. He said no. I insisted that he had. He then remembered that the week before, while saving hay, he had drank freely from a spring; he then said that he expected that I was right, as a negro family who used the spring water had chills; no other members of his family of twelve who used hydrant water had chilis.

I will mention one more case. The family of Mr. N., this

city, composed of wife, daughter and three sons; the boys had chills and fever every summer; the wife and daughter escaped. On investigation I found that the boys while at play in a ravine near by, were in the habit of drinking from springs, that were plentiful along the ravine, because they were colder and better than hydrant water. I stopped them from spring water, and they have had no chills this summer, with one exception. The oldest son went fishing two days, and drank water from a spring on the creek. I asked him why he drank spring water; he replied that he did not think that every spring contained poison; he says he will drink no more spring water unless it is boiled.

I suppose these cases are enough to illustrate the idea. I could mention hundreds of a similar character. I have known of springs that ran into a trough or gutter as it came from under a bluff, and the water was caught in a bucket ten or twelve feet away, having no pool after it came from under the ground in which to develop the parasite. I know a family who have such a spring and they never have chills, although they are surrounded by swamps.

The large old-fashioned well is nearly as bad as a spring unless it is deep. I would suggest as a preventive, especially where the water is not more than fifty feet deep, that driven wells be substituted. They are the easiest of all wells to put down; the first piece is a cylinder three or four feet long that is perforated so as to admit the water; it has a sharp point, and is driven into the ground; then another piece, not perforated, is attached and driven down, and so on until it is finished; then a pump is put on the top, which makes it secure against infection.

I know a man who lives in the Mississippi Delta right on the Talahatchie river, and he has as healthy a family as anybody. He imports all of his drinking water.

I saw a gentleman last week who owns a farm in the Mississippi bottom on the Arkansas side; he has eleven driven wells, and he told me that since he put them down that his people had had no chills. He thought the exemption was caused from the depth of the wells. I told him that I thought it was because they were sealed up at the top. I think that if all the springs were abandoned and these driven wells substituted, and, where this is not practical, boil the water, we would be almost certainly rid of chills and fever.

I do not say that we get malaria in no other way, but I do

say that so far as my observation goes since my attention was called to it, in every instance it was traceable to drinking water; the same holds good as to dysentery, and, in many cases, to typhoid fever.

THE EPILEPSY OF NAPOLEON.

No life in its singularity better supports my theory that epilepsy is fundamental to genius, than that of Napoleon, as he was surely one of the most complete examples of genius. He not only had motoria convulsions, followed by sleep and unconsciousness; excessive violence without cause, so common to genius, but the phenomena rarely noted in psychic epilepsy—momentary mental absences. Nor was an hereditary cause lacking. It is well known that epilepsy is often inherited through parents addicted to alcohol. Napoleon himself confessed to Antommarchi that his father drank, and he died young of a cancerous affection. He was talented, intriguing, and lacking, or almost entirely so, in moral sense. It was known he was an old friend and follower of Paoli, whom he abandoned at the time of his exile, and thenceforth became a client of the French governors. Napoleon's sisters were very immoral, especially Pauline, who was hysteric; it was she who allowed herself to be sculptured nude by Canova. Lucien was selfish, avaricious and sensual. The mother, however, was a woman of solid character, resolute, intelligent and imperious.

Napoleon was short of stature, barely five feet tall, though he measured five feet, six and a quarter inches from finger-tip to finger-tip; which is considered by the alienist, a mark of degeneration. The mesocephalic head, with depressed temples, was not lacking in anomalies, especially the heavy jaw, with the pendant lemuria that is familiar to us all, the salient cheekbones, arched zygomatic bone and scanty beard, which one sees in his youthful portraits, before adulation had transformed the expression of his face. The upper and lower parts of his body lacked proportion, the legs being too short in comparison to the trunk; the head sunken between the shoulders, and the back slightly curved. He had hyperesthesia to such an extent that he had his room heated as late as July. He perceived odors when no one else noticed them. He suffered from frequent megrims, and had an exaggerated form of

what I call meteorologic sensibility, causing him to feel the approaching changes in the weather, from which he suffered, becoming ferocious when it was damp. As is frequent with epileptics, he had muscular contractions, especially when under strong emotion. In anger the muscles of his calves twitched. When he treated of new schemes he was addicted to what are called Jacksonian convulsions, twisting the right arm and raising the right shoulder, with contortions of the lips and grinding of the teeth. From his youth he had regular epileptic convulsions. At one time at school in Paris, he was to have been punished for insubordination, by wearing coarse clothes and by eating on his knees, but he was seized with such a serious attack of convulsions that the punishment had to be spared. In the journal of travel to Margonza in 1804, kept by an unknown lady of the court, and in Constant's Memoirs, it is stated that on September 10, Napoleon had one of the nervous attacks to which he was becoming subject. Josephine called for assistance and after many hours of anxiety it passed over. The Emperor forbade its being spoken of. Another time Constant saw him in an attack between epilepsy and incubus, lying on his elbows in bed, shaking and screaming; he was awakened with much difficulty, and pretended to have dreamed that a bear was tearing his chest. Talleyrand saw him in a more marked attack, when, in 1805, he went with the Emperor to Strasburg. One afternoon he saw him go into Josephine's room; soon afterward he came rushing out, grabbed Talleyrand by the arm, almost dragging him into a near room, and confusedly asked him to close the door, when he dropped upon the floor as if dead. "He trembled and foamed with convulsions, which lasted about a quarter of an hour. Soon after, he began talking, then rearranged his clothes, and recommended silence to us; half an hour later he was on his way to Carlsruhe." Like many epileptics, he had a very slow pulse, 48, and later 60 to the minnte.

Great were his mental absences. Wolsley declares a military plan was adopted at Borodino which insured success, and that the victory was lost by the actual mental paralysis of Napoleon. At Dresden, as after the battle of Moscow, he lost the fruit of the battle by a sudden mental absence which prevented him from making a decision; at Moscow he did not decide to comply with the request of his generals and order out the reserve to pursue the Russians. His mind certainly was not clear when, at Vasarvi, simply because he was af-

fronted at not receiving a reply from Alexander, he decided, almost without preparation, upon a plan of invasion against a solid war-like people, protected by the steppes, the cold, and above all by intense patriotism.

He was entirely lacking in moral sense, as is common with epileptics, which Taine justly says, made him a great leader. Thus at Cherasco he said to the Savoyard general with whom he was treating for an armistice: "I wanted to demand in the treaty that was being closed, a fine picture of Gerard Dow, which belongs to the king, and is one of the masterpieces, but I could not see how to put a picture in an armistice, and I feared it would seem a strange freak, especially having the fortress of Coni attached to it." It is the language of a brigand making a redemption. In his talk with Metternich at Dresden, when the latter remarked that the late war had cost 200,000 lives, Napoleon answered: "What are 200,000 men to me?" Napoleon's complete lack of moral feeling was reflected in the phrase, although purely official, of the bulletin issued from the horrible Russian carnage: "The health of the emperor was never better." No Asiatic despot, even in ancient times, could have dictated a sentence more jarring on the mournful scene of death from which it was issued. Madam Remusat relates of Napoleon's having said in a conversation with Josephine: "I am not like other men; moral and social laws were not made for me." Upon another occasion, in reprimanding the Bishop of Grand, who did not wish to give his oath, as it conflicted with one he had already sworn, Napoleon said: "*Eh bien monseur*, your conscience is nothing but stupidity." The evening of the 13th vendomiaire, being present at the arrangements of the insurrection of the sections, he said to Junot: "Ah! if the sections would only place me at their head, in two hours I would install them at the Tuilleries, and would clear out all the miserable conventioners," Five hours later he headed the conventioners, and had opened fire upon the Parisians. These qualities did not develop late, but were manifested at an early age; even in college he was reticent and deceitful. His worthy uncle, Corso, prophesied a splendid future for Napoleon, because he was master of falsehood; the eulogium which Napoleon reversed upon Metternich.

His baseness reached the point that at a public banquet he spilled some oil on the gown of a great lady, of whose honor he wished to rob her, that he might have a pretext to retire with her into the next room. One should read his recently

published correspondence to see how, aside from the monumental Caesarean style of his proclamations, he used a coarse, slangy language. It is known that many of the worst letters have been suppressed and will never be seen. How unfortunate that he should have shown these qualities even in treating with sovereign and foreign ministers of state; insulting them in his proclamations, his letters and his audiences; revealing their love intrigues, whether actual or supposed. The bulletins 17, 18 and 19 after the battle of Jena, openly accuse the Queen of Prussia with an intrigue with Alexander of Russia.

His unlimited selfishness was shown in Egypt and in Russia when, at a time when everything depended upon him, he abandoned the army for the sake of saving himself. He would never have raised his brothers and brothers-in-law and many of his generals, except to have them as instruments in his hand, as reflectors and magnifiers of his own light. He thrust them cruelly against their people for his own interests. When he crossed into Italy the first time, he began with the phrase "my soldiers" and "my army," and finished by talking of "my people," "my senate," and even of "my bishops," and "my cardinals," as though they were his puppets. For arranging, directing and mastering the practical affairs of life, such incomparable and lively passions form a tremendous force. This force was Napoleon's selfishness; not the inactivity of the many, but active, aggressive selfishness, developed to the point of creating an infinite Ego, so that in the vast domain in which it acts it cannot suffer another existence, unless it be an appendage or an instrument of its own. As a child this characteristic existed in him in embryo. He was rebellious at every reproof; without scruples, without conscience; intolerant to rivals, ready to fight any one who would not give way to him, while he accused others of attacking him. He considered the world as a magnificent banquet open to all, where to be well filled it is necessary to have long arms and help one's self first, letting others have only what is left. Man, according to him, is dominated with his same selfish passions of fear, cupidity, self-love and emulation. Napoleon never departed from these ideas, nor could he; they being a part of his character, he saw man as he chose to see him.

His selfishness, reflected in ambition, took such possession of him as to kill his conscience, and ambition finally caused his downfall. It was not enough that his functionaries were

active and zealous; after having killed every critical sense in the man, he must belong to him body and soul; and in the slightest observance he suspected a conspiracy or an attempt upon his majesty. He demanded every agreement of service from his functionaries—even though criminal—from the falsification of the Austrian and Russian notes in 1809 and 1812 to the projection of an infernal machine against the Bourbons, in 1814. Gratitude was unknown to him; when a human instrument no longer served him he cast it away. Peace for him was an armistice during which he prepared for a new campaign. It was for this reason that all Europe, taught by experience, united after 1809 in turning against him. Napoleon, instead of considering his own personality secondary to the State, considered the State secondary to his personality. He had no regard for the future and sacrificed it to the present. "If my successor is an imbecile, so much the worse for him." He made the press a slave to Censorship, and even prohibited works of statistics and economy, if they appeared to cast doubt upon his infallibility. It was the same with the schools. He wrote to his councillors of State: "In establishing a corps of instruction my aim is to have a means of directing public opinion in politics and morals." As Renan said, school was for him the vestibule of the academy. G. Gorion was sent to prison for having called his coronation with the iron crown an absurdity, and Lattanzio was committed to the insane asylum for saying Napoleon would make himself king of Italy. His brother Joseph said Bonaparte would have had no peace if he could have supposed that after his death everything would go on quietly and smoothly. He forced France into an abyss, conscious that he was deceiving her; by misdeeds and an abuse of confidence there grew by degrees the divorce between his own interests, such as he understood them, and the public interest.

Napoleon ended by becoming the slave of his monstrous conceptions and his limitless ambitions. Even though the expedition into Russia had not ended disastrously, some other misfortune would have overtaken him. In order to carry out such an enormous campaign it would have been necessary to have a tremendous combination of forces. The fate of Napoleon's subjects was reduced to a military career or obligatory administration. In 1810 there were 160,000 men who refused to serve, and in 1811 and 1812 60,000 were arrested. Meantime he had made 4,000,000 victims; France was reduced by two foreign invasions, made a suspect of Europe, surrounded

by menaces of odium and envy. This was the political work of Napoleon; the outcome of selfishness supported by genius. With his false image of glory he promoted what may be called the military and bureaucratic degeneration of France; the worst calamity that can overtake a civilized nation. In all this he showed an impulsiveness and above all a brutality common to epileptics. As Bonfardini says, he mistook brusqueness for dignity, his own caprice for moral law, anger for justice and insolence for truth. It is told that he kicked Volney when he said that France wanted the Bourbons, and gave Bertier a cuff when he saluted him inopertunely, as "Roi de France." While the treaties of peace were being made with the Count Cobentzel, Napoleon suddenly broke a valuable vase, saying, "I will break your monarchy in pieces like that." At Boulogne, when the admiral refused to collect the fleet on account of a menacing storm, Napoleon raised his lash upon him, which he had already used several times on some of the grooms. He writes to Prince Eugene, "You will await orders from H. M. were it only to change the ceiling of your room, and if Milan were on fire you should await orders, although the whole city burn while you are waiting." He once violently thrust his brother Louis out of the door. In Dresden, in 1813, he brutally asked Metternich, at a time when he was indispensable to him, how much England had paid him to represent her interests as he was doing. Intolerant of delays, he would throw clothes into the fire if he did not easily succeed in putting them on. He scrawled, he did not write. He dictated with unusual rapidity, and if asked to repeat would fly into a passion, which his secretaries sometimes provoked for a rest. From childhood he was violent and impulsive. He boasted to Antommarchi that as a child he feared no one, struck and scratched everybody, especially his brother Joseph, whom he would bite and kick until interfered with.

A leader of high talent, between the alternatives of the throne and the gibbet, he made a game of peoples, religions and governments, with incomparable skill and brutality. His gigantic intellect was abnormal for his size. Marbot, a reliable authority, attests that he had marvelous nervous force, and had resistance for a work seemingly incredible. He could spend ten or twelve hours on horseback, with barely four or six hours interrupted sleep, being wakened for his signatures, only to fall immediately to sleep again; and this upon the eve of battle which would keep him in the sad-

dle all day. At Paris, after a day of intense work, he could rise in the middle of the night, dictate to many secretaries, who changed with the precision of sentinels; and in this way go from a conference with his ministers to an audience with literati or artists. "The quantity of facts," wrote Taine, "which his mind stored up and retained, the number of ideas which he produced and elaborated, seemed to surpass human capacity; and always as one of experience, of a practicality which contrasted with the abstractions and theorems of his Latin education."

"I think more rapidly than any other man," said Napoleon. In the art of mastering men his genius was superhuman. All his sayings are fire-flashes: "Liberty," he exclaimed, "is the necessity of a small and privileged class, endowed with higher faculties than those of the mass of mankind, therefore you can lessen or infringe upon it with impunity. Equality, on the other hand, allures the rabble."

He possessed a faculty which carries us back to the Middle Ages, an astounding constructive imagination. What he accomplished is surprising, but he undertook far more, and dreamed much more even than that. However vigorous his practical faculties may have been, his poetic faculty was still stronger; it was even greater than it should have been in a statesman; greatness was exaggerated into immensity, immensity growing into madness. He was great, yes, but his greatness became a monstrosity. What aspiring, gigantic conceptions revolved, accumulated, superseded each other, in that magnificent brain. "Europe," he said, "is but a mole hill. Only in the Orient, where six hundred millions of men live, can one establish great empires, excite great revolutions." In Egypt he dreamed of conquering Syria, of re-establishing the Eastern Empire; returning to Paris by Adrianople and Vienna. The Orient allured him with the mirage of omnipotence, and in the Orient, he, the new Mahomet, caught a glimpse of the possibility of creating a new religion, while in Europe he dreamed of rebuilding the Empire of Charlemagne; of making Paris the physical, intellectual and religious capital of Europe; assembling within its precincts the princes, kings and popes who should have become his vassals, then extending his domain through Russia to the Ganges and the Indian supremacy.

From the turmoil of politics rose the artist, creating the impossible in the field of the ideal. One soon recognizes him for what he is, a posthumous brother of Dante and Michael-

angelo, though they worked on paper and with marble; he worked upon the sensitive, suffering flesh of living man. Neither in the Malatestas nor the Borgias does one find such an impulsive brain, in which the internal tempest is so continuous, so menacing, so sudden in its flashes, capable of such electrical changes and discharges, and so irresistible in its shocks. In him no idea remained in a mere state of speculation, each was equivalent to an inward convulsion, which immediately extended into an act." This wonderfully reproduces the epileptic mind in its greatest hypertrophy.

Although he traveled through Europe so much he never had a clear idea of the social conditions of the people. He thought that in a hundred years Europe would be Russian or republican. He was blind to the facts of social life. His was an intense intellect, with rays of light in various directions, rather than a solar intelligence which sheds light upon all; he felt the truth in an attack of clearness, or he understood nothing. There were many odd contradictions in his politics, as when he re-established the catholic religion and seized the pope. He forbids Gerardin to appear at court, because he is divorced, and later Napoleon is himself divorced. He declares the glory of his race to have risen at the battle of Marengo, and then affects regal pomp and heraldry. One of his oddest caprices was his passion for making marriages; the number he made and imposed was extraordinary. When convalescent at Valencia he married the daughter of his attendant to a young acquaintance. He married his brothers, his sisters, his nephews, almost all his generals. When some one refused one of his sisters, he offered her to another, and obliged the marriage to be consummated in two days. At St. Helena he continued to make marriages among his attendants, and among the children of the generals and governors of his suite. Even in his will, in a codicil, he asked the Duke of Istria to marry the daughter of Duroc. He believed that a star guided him, and at St. Helena he showed fear of a comet. He was superstitious about Friday. When he broke the glass of the picture of Josephine, which he always carried with him, he feared for her life. In making war he always selected propitious days. He had the rudimental form of doubting insanity, and was not able to go through a street, even at the head of an army, without counting the windows in pairs. There is in this great man the combination of genius with convulsive and psychic epilepsy, which is manifested by impulsiveness, mental-absences, cynicism, ex-

cessive selfishness, and megalomania. And by this example, which cannot be an isolated case in nature, one can believe it possible that epilepsy is the substratum of genius.

If we further analyze the phenomenon of genius under the light of the new theories upon epilepsy which are being solved to-day by the clinics and experimentalists, we see the justice of the conclusion that genius is a form of psychic degeneration, of the species epileptoid. The lesser number of women of genius supports this theory, as women are more rarely degenerate and more rarely have psychic epilepsy. It is proved by the frequent anomalies of asymmetry of the cranium; moral insanity, which I have demonstrated in "Criminal Man" as being a variation of epilepsy; hallucinations, intellectual and venereal precocity, somnambulism, double personality, which has two and sometimes three opposing natures; sometimes obtuse, sometimes exaggerated sensitiveness; the anomalies of the field of view, bluntness of perception, the frequency of suicide, which is very common in epilepsy; and above all, amnesia and analgesia. It is also demonstrated by a roving tendency and strange fears by which one is seized; misonism, and an affinity to criminality, the point of union of which is moral insanity. Add to it the origin and descent from criminals, inebriates or from imbeciles, which often marks both the genius and the epileptic, and which is seen in the families of the Caesars and of Charles V. It is shown by insensibility and a lack of moral perception which is common in geniuses. One might doubt the conclusion who does not know the extent of the field of epilepsy in modern times, since intermittent hemicrania, scialorrhea and amnesia are now recognized as epilepsy. Many forms of monomania are but a guise of the disease, at the appearance of which all other pre-existent traces of epilepsy often disappear. It is enough to mention the number of geniuses of the first order who were taken with motoria epilepsy, vertigo or passionate anger, in which they lost themselves absolutely; besides Napoleon there were Moliere, Julius Caesar, Musset, Petrarch, Peter the Great, Mahomet, Handel, Swift, Richelieu, Charles V., Flaubert, Dostoyewski, Guerazzi and St. Paul. Those who suffered from vertigo were Dickens, Swift, Herschell, Faraday and Marlborough. Vertigo is simply cortical epileptoid which is accompanied by loss of memory or paralysis, as in Dickens and Faraday, and by convulsions, as in Marlborough. As to passionate anger, we recall Peter the Great, the parricide; and Byron, who from childhood fell

into such paroxysms that it was sometimes feared he would die of suffocation.

For one who understands the binominal law, according to which no phenomenon is isolated, but always the expression of a series of less marked though analogous facts, such frequency of epileptic phenomena among the greatest men indicates that it is more extended among geniuses than any one would at first think, and that the nature of genius itself must be epileptic. It is important to note how seldom in their lives they have convulsions, and that in such cases the psychic equivalent (which creates genius) is more intense and frequent. Above all, the identity of the two great phenomena is proved in the analogy between the epileptic attack and the moment of inspiration; the unconscious and violent activity which creates in the latter, acts motorially in the former. Most convincing of all is the analyzation of the creative inspiration, which is sudden, intermittent; frequently associated with unconsciousness, irregularity of the pulse and often somnambulism, and not seldom accompanied by convulsive movements of the limbs or followed by amnesia. It is often occasioned by conditions which provoke or increase cerebral hyperemia, and is followed by hallucinations.

The close connection between inspiration and the epileptic attack is pointed out more directly in the words of a great statesman, Beaconsfield: "It often comes into my mind that there is but a step between intense mental concentration and insanity; I can not easily describe what I feel in that instant, it then seems to me that my senses wander and that I am no longer sure of my existence. I recall often having been obliged to refer to a book to see my own name written to assure myself that I lived. During this state my sensations are incredibly acute and intense. Every object appears animated, and it seems to me that I am conscious of the rapid movements of the earth."

A modern novelist says: "It is a fatality that dictates the idea; an unknown force, a supernatural will, a sort of necessity to write which directs the pen and in such a way that when the book is written it no longer seems yours, and you wonder how such a thing could have existed in you and of which you had no consciousness; such is the feeling I had in creating 'La Soeur Philomine." (Journal de Goncourt.)

(To be continued.

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EDITORIAL.

MEDICAL SOCIETIES.

This is the season when medical men love to meet together and discuss matters of great interest to the general public and to themselves, if we may judge from the many society sessions that are now being held. That it is the best time of year to hold these meetings we very much doubt. The men who make these meetings interesting and successful are the workers in the medical world, whether found in the city or country, whether engaged wholly in private practice or in school work, whether in general or special lines. At this season of the year these men are busiest, hence they have not the time to devote to society work that should be given to it. In the spring after the college sessions are over, or in the summer when the busy man seeks a rest, would be a more opportune time to arrange for these medical gatherings. The meetings then would be better attended and would be the

places where the work of the previous months would be reported and commented upon, thus making them most valuable. At that season of the year it would not only be possible but a pleasure for the hard workers of the profession to attend and aid in making the work useful and successful.

Medical societies are multiplying rapidly—perhaps too rapidly—but that only proves their worth. They are the very best schools for post graduate work—much better in many respects than the hospitals and schools devoted to post graduate teaching. In the medical societies a definite programme is arranged; each member is enabled to look up the literature of the work to be presented and to take what exceptions he may think proper to the papers presented. His own cases he may bring forward for criticism, and thus he may learn his errors if he has been guilty of any. We oftentimes learn more by our mistakes than by our successes. The post graduate schools take a man away from his practice for a long time. They place before the attendants the opportunity of seeing work, and they present them with a certificate for post graduate attendance. But do they insist upon attendance at the classes? Do they keep any record of the work done? Do they demand any degree of proficiency before issuing these certificates? They do not. They take it for granted thas if an M.D. matriculates and pays his fees he comes for work, and upon this they certify for the course.

We all know that many, very many, of the attendants at post graduate schools do not systematically attend upon the courses of instruction. A serious surgical operation—and they are going on nearly all day in the large schools—is a fascination few men can resist, hence much valuable time is *wasted* watching, from a back bench, some skilful manipulator delving into a hidden recess. Now all of this renders the certificate of doubtful value, if not actually harmful.

The possessor of post graduate credentials may come home imbued with the idea that he can delve into those hidden spaces invaded so easily and successfully by Professor Blank.

Professor Blank has not given him the necessary instruction by which he may be enabled to say where he shall begin his delving process, but he has taught that it can be done, so he goes straightway and does it at the first opportunity. How much is Professor Blank and the post graduate school responsible for the mortality that follows?

At medical meetings, owing to the free discussion that ensues upon the reading of any paper, all of the dangers and difficulties are well considered, the whys and the whens and the whereases are thoroughly threshed out, and the attendants go away with a full knowledge of the responsibilities of his work, though he may have missed the fetching scene of Professor Blank's operation. It is a pity that medical societies can not issue certificates of attendance.

STUDENTS OF 1898-'99.

The critical spirit of the times that demands excellence in all departments of public service is showing itself in the quality of the medical students now presenting themselves for admission to our medical schools. Throughout this country, as shown by the voice of the people reflected upon the statute books of almost every state, there is a want of tolerance of inferior medical knowledge and a more or less severe condemnation of all forms of *pretended ability* to practice the science of physic. A few years ago, especially here in the south, there were admitted to the universities giving medical courses men devoid of even the slightest claim to a preliminary education; men unable to spell correctly words of more than two syllables, and who were constant murderers of our mother tongue. In the far gone days when the results of surgery made the surgeon appear to the public little more than a butcher such a condition was tolerated, but to-day when a surgical procedure has been robbed of its honors, when the surgeon is ranked co-equal with the physician,

the public is demanding that each shall be an educated gentleman. This requirement, made manifest by the state laws and by the action of the public in seeking only the best men, is bringing to our schools applicants for matriculation who are with few exceptions quite up to the requirements laid down by the college associations.

This session there have been but few applicants rejected by the Medical Department of the University of Nashville. A brighter or more intelligent class has probably never assembled in any institution than that now within her walls. We believe that almost every other medical school in the country feels the benefit of the silent but powerful action of the public by which they insist upon medical men all being capable. It is to these forces largely that we owe the lengthening of the college terms, the existence of efficient examining boards, and, in short, the great advances made in medicine and surgery during the last few years. We trust that all the medical schools will do their part in aiding this onward progress, by insisting upon their matriculates possessing at least the preliminary qualifications as laid down in the rules governing the college associations.

SECTION ON MEDICINE.

UNDER CHARGE OF W. L. NICHOL, M.D.,

PROFESSOR OF DISEASES OF THE CHEST, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; AND

E. G. WOOD, M.D., C.M.,

PROFESSOR OF PRACTICE OF MEDICINE AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF THE BRITISH MEDICAL ASSOCIATION, ETC., ETC.

IMMUNITY OF MUCOUS MEMBRANES TO BACTERIA.

In the N. Y. Medical Journal for October 15, Dr. Wagner of the University of California deals with "the natural immunity of the mucous membranes of the respiratory tract. That such natural immunity exists is clearly demonstrated by the fact that bacteria are constantly carried to the surface of the upper respiratory organ by inhalation without producing any local or general infection in the healthy body. On the other hand these bacteria taken from the normal mucous membrane and placed in proper culture media will grow and develop rapidly. The bronchial tubes in the living animal are sterile, while after death they become invaded by a very large number of bacteria; therefore the immunity process must depend upon a "protoplasmic activity in the living body." Dr. Wagner gives as the results of his researches:

1. The natural resistance of the mucous membrane depend on the "activity of leucocytes."

2. The action of these leucocytes on bacteria does not consist in their total destruction—as observed in disinfection by heat or by a chemical—but it consists in greatly "diminishing their activity" to form poisonous products (toxins, etc.).

This is explained, that leucocytes produce "enzymes," which ar able to "impair the chemical structure of the bacterium body." Therefore the defense of mucous membranes consists in disabling the foreign cell in its activity, either to form poisonous products or to enter their tissues. In other words, the bacteria are "slumbering" on the mucous membranes, just as we meet such latent life in the vegetable kingdom, and in this "inactive" state the bacteria are carried

away from our mucous membranes by the secretions and excretions.

GENERAL INFECTION STARTING FROM THE TONSILS.

Jessen (Muench. med. Woch., June 7, 1898) first refers to the literature of the subject, and then gives details of illustrative cases:

1. A man, aged 30, had a dirty greenish exudation on one tonsil from which the streptococccus and staphylococcus were alone obtained. This was followed by a characteristic erythema nodosum and severe pains in the joints. The fever gradually disappeared. The examination of the blood was negative. The case resembled a gangrenous diphtheria, but had no relation with it.

2. A woman, aged 28, was admitted comatose and died in twelve hours. Here there was no other source for the pyaemia except in the suppurative foci in both tonsils, which were obviously older than the other lesions.

3. A girl, aged 17, suffered twelve days after the commencement of an angina, due to the streptococcus, from a streptococcal broncho-pneumonia, pericarditis, pleurisy, and nephritis. There was along with the stupor a roseolous eruption and hemorrhage. Recovery ensued.

4. A girl, aged 24, had a whitish-yellow exudation on both tonsils, and then developed signs of a diffuse broncho-pneumonia, pericarditis and general sepsis. The staphylococcus was found after death in all the diseased structures. Jessen draws attention to the fact that this case would run a risk of being classed as influenza. He emphasizes the fact that tonsils with a normal appearance may contain foci of suppuration. If an exudation appear on the tonsils, and then later small abscesses are found in their substance, it must be taken for granted that the microbes have penetrated from without. The author thinks that these cases giving rise to severe infections may be recognized as such, as the exudation is not situated in the lacunae, but exists in long yellow or yellowish-white streaks, extending from above downwards over the tonsils.

The treatment of these cases should consist in as continuous application to the tonsils as possible. Extirpation of ragged tonsils for prophylactic purposes is distinctly indicated. Bacteria causing chronic affections such as tuberculosis may penetrate through the tonsils, and the author gives il-

lustrative cases. He emphasizes the necessity of attending to the tonsils in these cases. The adenoid tissue in the various tonsils is a more frequent starting point of general infections than is generally believed.

SECTION ON THERAPEUTICS.

UNDER CHARGE OF W. G. EWING, M.D.,

PROFESSOR OF MATERIA MEDICA, THERAPEUTICS AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

ONE HUNDRED CASES OF PULMONARY TUBERCULOSIS TREATED WITH LARGE DOSES OF BEECHWOOD CREOSOTE.

Dr. C. Lamplough (Brit. Med. Jour., No. 1952, 1898, p. 1383). Having compared the objections raised against the administration of beechwood creosote in phthisis with the results obtained at the London Hospital for Diseases of the Chest, by treating one hundred cases with this drug, the author suggests the following poists as worthy of consideration and further investigation:

1. The best beechwood creosote can be given with benefit, in amounts varying from 120 to 240 minims daily, in cases of pulmonary tuberculosis.

2. The drug is best administered in cod liver oil or in a spirituous solution, and in some cases the "creosote chamber" or oro-nasal inhaler may be ordered in addition, with advantage.

3. The dose should be small at first, but it can be rapidly increased to 40 minims three times daily for an adult. In three cases doses of 30 minims three times a day were well borne by children.

4. Large doses rarely cause any gastric disturbance; on the contrary, the appetite is frequently increased, symptoms of dyspepsia disappear, and cod liver oil is more easily assimilated. The cough, expectoration and night sweats are diminished, and the physical signs improved.

5. Owing to its disinfectant action in the alimentary canal the drug probably diminishes the risk of tuberculous enteritis by auto-infection when patients swallow their sputa, but owing to the increased peristalsis, which is created by creo-

sote, it is usually contraindicated in most cases where the ulceration is already advanced.

6. The drug does not tend to cause hemoptysis, but rather to prevent its recurrence.

7. Creosote does not irritate the normal mucous membrane of the genito-urinary tract.

8. Owing to its extremely small cost, pure creosote can be given to a much larger number of patients than the carbonates of creosote and guaiacol, which respectively cost four times and twelve times as much as the older drug.

SECTION ON NEUROLOGY.

UNDER CHARGE OF T. L. MADDIN, M.D.,

PROFESSOR OF NERVOUS DISEASES AND GENERAL PATHOLOGY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF AMERICAN MEDICAL ASSOCIATION, ETC., ETC.

SOME OBSERVATIONS ON BRAIN ANATOMY AND BRAIN TUMORS.

Dr. William C. Krauss, of Buffalo, read a paper at the 92d annual meeting of the Medical Society of the State of New York, Albany, January 25, 1898, with the above title.

He called attention (1) to the difficulty in remembering the gross anatomy of the brain, and (2) to the almost universal presence of septic neuritis in cases of brain tumor.

He attempted to overcome the difficulty in regard to the anatomy of the brain by formulating the following rules, which are somewhat unique and original, and at the same time easily remembered.

RULE OF TWO.—1. The nerve centers are divided into two great divisions, (1) encephalon, (2) myelon.

2. The encephalon is divided into two subdivisions, (1) cerebrum, (2) cerebellum.

3. The cerebrum, cerebellum and myelon are divided into two hemispheres each, (1) right, (2) left.

4. The encephalon is divided; indented by two great fissures, (1) longitudinal, (2) transverse.

5. Into these two great fissures there dip two folds of the dura, (1) falx cerebri, (2) tentorium cerebelli.

6. There are two varieties of brain matter, (1) white, (2) grey.

RULE OF THREE.—1. There are three layers of membranes surrounding the brain, (1) dura, (2) arachnoid, (3) pia.

2. Each hemisphere is indented by three major fissures, (1) sylvian, (2) rolandic or central, (3) parieto-occipital.

3. Three lobes, frontal, temporal and occipital, on their convex surface are divided into three convolutions each—superior, middle and inferior, or 1st, 2nd and 3rd.

4. There are three pairs of basal ganglia, (1) striata, (2) thalami, (3) quadrigemina.

5. The hemispheres of the brain are connected by three commissures, (1) anterior, (2) meii, (3) post-commissure.

6. The cerebellum consists of three portions, (1) right, (2) left hemisphere, (3) vermes.

7. There are three pairs of cerebellar peduncles, (1) superior, (2) middle, (3) inferior.

8. The number of pairs of cranial nerves, in the classifications of Willis and Sommering, can be determined by adding 3 to the number of letters in each name: that of Willis making 9, and that of Sommering making 12 (or the name containing the more letters has the larger number of pairs of nerves, and vice versa).

9. The cortex of the cerebellum is divided into three layers of cells, (1) granular, (2) Purkinje's cells, (3) molecular.

RULE OF FIVE.—1. Each hemisphere is divided externally into five lobes, of which four are visible—frontal, parietal, temporal, occipital; and one invisible, insula (Isle of Reil). Roughly speaking, the visible lobes correspond to the bones of the cranium; that is, the frontal lobe is underneath the frontal bone, the parietal lobe beneath the parietal bone, etc.

3. The brain contains five ventricles, of which four are visible—the right and left, or 1st and 2nd, the 3rd and the 4th; and one invisible, the 5th or pseudo-ventricle.

3. The cortex of the brain contains five distinct layers of ganglion cells.

Styduing carefully 100 cases of brain tumor in which an ophthalmoscopic examination had been made for the presence or absence of choked disc (optic neuritis), Dr. Krauss announced the following conclusions:

1. Optic neuritis is present in about ninety per cent. of all cases of brain tumor.

2. It is more often present in cerebral than in cerebellar cases.

3. The location of the tumor exerts little influence over the appearance of the papillitis.

4. The size and nature of the tumor exerts but little influence over the production of the papillitis.

5. Tumors of slow growth are less inclined to be accompanied with optic neuritis than those of rapid growth.

6. It is probable that unilateral choked disc is indicative of disease in the hemisphere corresponding to the eye involved.

7. It is doubtful whether increased intracranial pressure is solely and alone responsible for the production of an optic neuritis in cases of brain tumor.—Philadelphia Med. Journal.

LAUGH AND GET WELL.

"Bonuventum des Pariere: An ape is the hero of this discourse, whose master fell sick of a fever, so grievously in fact that the doctors had to be called in. At first they clystered him, and then they drew his blood, according to the mode of treatment at that time universally in vogue. Next, four consecutive days they drenched the poor man with drugs of various sorts, and, finally, he was ordered a mixture, which the apothecary brought him with his own hands. It was then early in the morning and the patient was asleep; so placing the bottle on a table and covering it carefully with a cloth, this black swan among practitioners, rather than interfere with *nature's sweet restorer*, incontinently departed. After a little while the sick man awoke of his own accord and saw that his potion had arrived; but there was no one at hand to administer it to him, the inmates of the house having gone out in order not to disturb his repose. The door of the sick chamber happened to be ajar, and presently in comes the "ape" to pay his respects to his master; but the first thing the inquisitive creature did was to mount on the table where the covered-up medicine was standing. Lifting a corner of the cloth he began to sniff at the open mouth of the flasks and to judge by his expression, the odor was not much to his liking. For all of that he repeated the action several times, and at last ventured on a taste—for his curiosity made it absolutely impossible for him to refrain. The compound had a bitter sweet flavor, and master "ape" withdrew his muzzle verp smartly, twisting his lips about in disgust and pulling the most comical grimaces it is possible to imagine. Before long, however, the sweetness overcame him, and, returning

to the charge, he took a second sip, then a third, and so on, until at last he finished the stuff.

The poor, long-suffering patient's precious mixture was drained to the last drop! Now, it happened that the individual in question (patient), who was looking on all the time, was delighted beyond measure at the antics of the ape, so much so that he clean forgot all about his illness and burst out into such a roar of laughter that he straightway recovered. Owing to the access of joy, so sudden and unexpected, his spirits revived, his blood grew thin and his humors returned into their proper channels, thus extinguishing the fever. While he was revelling in his restored health, the apothecary reappeared on the scene, and inquired how he found himself and whether the last medicine had operated, but the patient was so full of merriment he was unable to speak intelligently. He could do nothing but laugh; whereat the other waxed exceeding wroth, believing that he was the butt of the unseasonable mirth. Then, with a great effort, the laugher contrived to exclaim: "Ask the ape what operation it has had." As may be supposed, this answer did not tend to smooth matters, and the incensed druggist was about to give vent to some furious rejoinder when lo! the ape himself afforded a practical solution to the embroglio, while at the same time supplying proof as regards the potency of the mixture. Comprehending at once that the animal must have acted as the sick man's *locum tenens*, and being happy gifted with the sense of humor, the worthy apothecary forthwith went into a roar on his own account; and the situation, lately so strained, resolved itself into a friendly duel between the ex-patient and his medical advisor as to which should laugh the longest and loudest.

SECTION ON ABDOMINAL SURGERY AND DISEASES OF WOMEN.

UNDER CHARGE OF M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

THE VAGINAL PLUG IN ACCIDENTAL HEMORRHAGE.

Dr. E. Hastings Tweedy in his exhaustive article reaches the following conclusions:

1. The vaginal tampon, when properly applied, is the most suitable treatment we possess for the worst forms of accidental hemorrhage.
2. It may be relied on as sufficient in the majority of cases not amenable to other treatment.
3. It controls the circulation in the uterine arteries, acting in much the same manner as does a tourniquet.
4. It dilates the cervix partly by exercising a peripheral force on that structure, and in part by exciting uterine contractions.
5. These latter are induced not alone as a consequence of cervical dilation, but are chiefly attributable to the power the tampon possesses in bringing about an accumulation of carbonic acid gas in the uterus.—N. Y. Lancet.

INDICATIONS FOR OPERATING IN APPENDICITIS.

Dr. Howells gives the following indications (Internat. Jour. of Surg., July, 1898):

1. If the patient looks ill, and there are vomiting and tympanitis with a rapid pulse.
2. If patient looks ill, and there is vomiting, even though pulse and temperature are under 110.
3. If patient looks ill and pulse is over 110.
4. If there is rapid and feeble pulse and extreme tender ness in the right iliac fossae.
5. If pain and tenderness, at first localized, tend to become general, even though other symptoms may be absent.
6. If local pain and tenderness continue more than two weeks without diminution.—Am. Med.-Surg. Bulletin.

DIAGNOSTIC POINTS IN CHOLELITHIASIS.

Dr. Steinthal considers the following points of value in deciding as to exact condition of the gall-bladder in cholelithiasis (Deut. med. Woch., No. 13, 1898):

1. An attack of biliary colic with or without jaundice, if the patient had passed any stones during a previous attack, points toward a gall-bladder filled with many little stones.

2. Attacks of colic with or without jaundice, if no stones had ever been passed by the patient point toward a single large stone or one large obstructing stone and several small ones.

3, Attacks of colic without janndice, if it is certain that no stones were passed before, point to a single stone in a diverticulum of the gall-bladder.

4. An attack of colic without jaundice and the passing of a large stone point toward an abnormal communication between the gall-bladder system and the intestines.

5. If the attacks of colic are accompanied by elevation of temperature, it points to inflammation with the presence of pus.—Am. Medico-Surgical Bulletin.

CANCER OF THE UTERUS.

Dr. Louis Frank thus summarizes his paper upon cancer of the uterus:

1. Cancer may begin at any time after beginning of the menstrual life of the woman.

2. The early symptoms are oftentimes obscure.

3. The least irregularity during the climacteric should arouse our suspicions.

4. Suspicious cases should be subjected to microscopic examinations.

5. Early examination is the only hope for cure.

6. Extirpation after the disease is very evident, after appearance of cachexia, is harmful rather than beneficial. In these cases our efforts should be directed towards making the patient more comfortable,

7. Finally it is our duty to teach and insist upon women consulting the physician for any irregularities in the menstrual flow.—Virginia Med. Semi-Monthly.

SECTION ON PATHOLOGY.

UNDER CHARGE OF LARKIN SMITH, M.D.,

PROFESSOR OF PATHOLOGY AND BACTERIOLOGY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

HOUSE QUARANTINE OF YELLOW FEVER.

In an able paper on the "Quarantining of Houses for the Prevention of the Spread of Yellow Fever," Professor S. E. Chaille (New Orleans Medical and Surgical Journal, May, 1898) vigorously opposes the practice and the claim that the experiment which was tried for the first time in New Orleans in 1897 diminished the number of deaths, and advocates instead the isolation of the sick in hospitals, the removal of those who have been exposed to infection to a camp of detention for five full days, and the thorough cleansing and disinfection of the house and premises. The objections to house quarantine are that it causes great popular dissatisfaction and discourages prompt diagnasis and notification, that the execution of measures successful in hospitals is much less practicable in most houses, that even in the best houses isolation is exceedingly difficult as to attendants and relatives, that in many houses neither proper rooms nor attendants can be provided, and that in the crowded lodging houses efficient isolation is hopeless. Attendants may be negligent, visitors' clothing may become infected, and thus cause further spread; there is temptation to violate the restrictions and to conceal sickness; inmates escape from the house before and during quarantine, and the well inmates are deprived of necessary occupation.

Treatment of the sick in isolation hospitals, where every precaution of disinfecting all discharges may be observed, and where indiscriminate ingress and egress can be controlled and prevented, is shown to be quite free from the danger of spreading the disease from the sick to the well. In every year when yellow fever has prevailed in New Orleans there have been instances of many non-immunes exposed to the sick in hospitals, asylums, convents and jails, without one of them being attacked even after weeks of exposure. In 1897 there were at the Touro Infirmary 105 cases with 10 deaths.

Twenty non-immune students and nurses constantly in attendance, and about a hundred patients with other diseases, escaped without a single case; but not one of these people was permitted to go out and return and run the risk of becoming infected outside. At the same time, at the Isolation Hospital, 202 cases were admitted, of whom 45 died. Eighteen non-immunes were long exposed to the sick, and more than a hundred workmen were temporarily exposed, and not one of this number was attacked. The preventive measures adopted included prompt and thorough disinfection of all excreta from the sick; through cleanliness of the body, the clothing of the sick and of bedding and all personal effects, as well as of the house and premises; free exposure to the sun's rays; and non-intercourse between those inside and those outside the hospital.

The indispensable prerequisites for stamping out any epidemic disease are prompt diagnosis and prompt notification; but in the case of yellow fever the authorities are hampered by the reluctance of the physician to report a mere suspicion of the disease on account of the danger of injury to his practice and of alarming the public and arousing the hostility of those engaged in commerce.

Opposing the claim that, even though the quarantining of houses was admittedly a partial failure, its effect was to keep down the number of cases and of deaths, he calls attention to the fact that no great epidemic has ever resulted when the first cases appeared later than June, and that whenever the first cases have occurred after July there have never before followed as many deaths as the 298 of 1897, in which year the first death occurred in September, and this in the face of the fact that until 1867 no measures were taken to prevent its spread; that until 1879 isolation of the sick was never attempted, and that until 1897 quarantine of both sick and well in houses had never been tried. For fifteen years prior to 1897 New Orleans had been free from the disease, the last cases occurring in 1882, when there were four deaths, and the escape of the city at that time from an epidemic was attributed by Dr. Joseph Jones, the President of the State Board, to isolation of the sick and thorough cleansing and disinfection of the section surrounding the focus of infection for at least four blocks each way.

Dr. Chaille quotes from Dr. Kohnke's report, which recommends that, instead of quarantining in a house with the sick all of the inmates who are well, the bread winners should be

permitted to come and go under strict precautions as to disinfection, care of clothing and place of sleeping. Not of the least importance is the dissemination of sanitary knowledge among the people, especially a knowledge of the infective nature of the disease, its disastrous results to the public, the preventive measures indispensable for its extinction, and the necessity for serious restrictions on the sick-room and for some restrictions on the well inmates of the house.—Am. Jour. of Med. Sciences.

SECTION ON DISEASES OF THE RECTUM AND VENEREAL DISEASES.

UNDER CHARGE OF A. B. COOKE, A.M., M.D.,

PROFESSOR OF ANATOMY AND CLINICAL LECTURER ON DISEASES OF THE RECTUM, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

THE RELATIONSHIP BETWEEN THE GENITO-URINARY TRACT AND RECTUM. IN OPERATIONS UPON THE FEMALE, WHICH SHOULD RECEIVE PRIORITY.

A paper with the above title was read by Dr. J. L. Jelks at the last meeting of the Mississippi Valley Medical Association. From an abstract prepared by the author, the more essential features may be noted as follows:

Attention is drawn to the fact that the pelvic viscera are all innervated from practically the same sources, and the importance of this connection is pointed out as accounting for the numerous and varied reflex pains to which these organs are prone. From even slight disorders of the intestinal tract severe pain may be referred to perineum, urethra or ovaries, and continuation of the irritation may result in permanent drainage of the neuron.

The fact of frequent and early involvement of the rectum after a cervix and perineal laceration is not explained by mere contiguity of the parts. Pressure of subinvoluted and displaced uterus and weakening of its supports may have some effect; but the continuity of their nerve supply and interference with the return circulation from the pelvis are more patent factors. The intimate vascular and nervous relationship between the rectum and other pelvic organs are from both an anatomical and clinical standpoint so constant that

the rectal surgeon, gynecologist and genito-urinary surgeon must often compare notes as to the nature of the case presented.

The rectal surgeon will often find that, though the rectum is involved to such an extent as to be bitterly complained of, the chief source of trouble is in one case a diseased ovary, or that in another case to relieve his patient he must dissect from the cervix a cicatrix and repair a perineum.

Almost without exception, cases applying for repair of perineum and cervix will also present some rectal ulceration which may be sufficient to overthrow the entire nervous system, and the gynecologist should be as well prepared to treat the latter as the former.

VARICOCELE.

Dr. F. E. Kelly (Chicago Clinic, October, 1898) says that when a physician is consulted for this disease, whether he is prepared to operate or not, he should give the patient the following truths:

1. That varicocele can be cured by the proper operation.
2. That long-standing cases can be cured in no other way.
3. That the danger is nil.
4. That the sexual power and the testicle itself is in better condition by reason of this surgical interference, if properly done.
5. That the time the patient is laid up is short.
6. That the usual train of symptoms leaves the patient, i.e., pain, nervous sensations, etc.

The indications for the operation are:

1. Large volume of the veins with deformity.
2. Reflex pain.
3. Impairment of sexual function.
4. Irritation of scrotum and interference with occupation.
5. Reduction in size of testes or disease of opposite gland.
6. Mental worry, etc.
7. When prevents entering public service.
8. When hydrocele or hernia exists and is operatable.

The author considers the open operation as advocated by Bermett the ideal method of procedure.

SECTION ON MEDICAL CHEMISTRY.

UNDER CHARGE OF J. M. KING, B.S., M.D.,

PROFESSOR OF CHEMISTRY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; CHEMIST TO STATE OF TENNESSEE.

ICE CREAM POISONING.

Of late an alarming number of cases of ice cream poisoning have occurred, and it is perhaps not amiss for us as physicians to instruct the parents as to the nature of the poison which so quickly affects the patient. It is caused by one of the newly isolated and developed crystalline poisons of the ptomaine class, which has been named by its discoverer, Vaughn, tyrotoxicon.

Vaughn isolated this substance from poisonous cheese, poisonous milk, poisonous ice cream, etc.; chemically it is very unstable. It may disappear altogether in twenty-four hours from milk rich with the poison. It induces vertigo, nausea, vomiting, chills, rigors, severe pains in the abdomen, dilatation of the pupils of the eyes, griping and purging, a sensation of numbness or "pins and needles," especially in the limbs, and marked prostration, and even death. Symptoms differ in individuals. This poison is thought to be the cause of the summer diarrhea of infants.

Poisoning from milk is less common than from certain varieties of cheese and from cream. When ice cream is made in large quantities the cream is allowed to accumulate, and if a portion of it becomes infected with the germ it will soon convert the whole mass into highly poisonous material. In Michigan in 1883 Vaughn collected the details of 300 instances of this cream poisoning, at the same time he found in the intestines of infants suffering from milk infection similar poisons. Its effects occur almost immediately after ingestion of this poisoned cream in infants or children previously healthy, and the symptoms are like cholera morbus, only there is a graver and more profound collapse. This collapse may prove fatal in a few hours if the poison be not eliminated.

This sudden effect has long been observed, but until recently has never been carefully studied; these sudden deaths by collapse required our closest attention to discover a poison which was so subtle as to leave no trace; so unstable as to

disappear in twenty-four hours from a large mass of the vehicle; so singular as to affect one person taking but a trifle of the poisoned mass while those partaking of many times the amount of the affected one may escape; so treacherous as to remain dormant in the human stomach twenty-four hours undiscovered and suddenly produce depressing effects in the nervous system like that of meat or pork poisoning.

Nature fortunately assists the patient before a physician can give his emetic, as vomiting and purging frequently precede the intense pain in the abdomen, thus getting rid of most of the poison.

This season strawberry ice cream has generally been blamed on account of a supposed chemical disturbance in the mass generating the irritant, but vanilla cream and plain cream have been equally suspected. The acid and tin are probably not factors in the distressing effects.

As ice cream is undoubtedly the most refreshing accompaniment to our summer excursions, it certainly behooves us at present to look into the conditions under which the poison develops. Tin churns which have become rusty or worn should be replaced by agate, or, better still, porcelain churns. Boiling the milk before freezing, which, when ready for the cream, if sterilized cream be used, would reduce the danger of infection. Throw doubtful strawberries away, or, better still, do not use strawberries at all. As vanilla is expensive, few use genuine vanilla; it is the Tonka bean that the bulk of our vanilla is made from. Long continued success in business makes people careless, but now that cream poisoning is so frequent, the makers should look more carefully into the detail of their output, superintending the manufacture themselves instead of leaving the making of it to employes. Test the milk for its purity.

Always eat slowly and, if possible, do not eat on a full stomach, as 98½° is the temperature which the human stomach requires for its perfect digestion, and ice cold cream so reduces its temperature as to stop digestion at once, and precipitates an acute attack of indigestion. The mixture of other foods, such as shell fish, crabs, schrimp, etc., endanger, by their mixture, digestive trouble.

It has been currently reported that ice cream is sold from northern industries, being made, packed and transported by rail to us. This, to my mind, involves great responsibility upon the vender, as he should know of its purity and condition of freshness in order to protect his patrons. It would be

difficult to guarantee against inferior milk under these circumstances, not to speak of the possible changes in transit.

We must obtain reliable cow's milk, and if, with the necessary ingredients added, the mass is sterilized and frozen, the danger of tyrotoxicon, or ice cream poisoning, would be reduced to a minimum.—Edgar H. Nichols, M.D., in Pediatrics.

COLLEGE CLINICS.

GYNECOLOGY—DR. M'GANNON.

Reported by Dr. A. Hudson.

HYSTERECTOMY.—We are indebted to Dr. Cooley, of Hustberg, Tenn., a graduate of this school, for this interesting clinic, and while the patient is being prepared for the operation, I will speak briefly about the disease with which this woman is suffering. Fibroids are composed of fibrous and muscular tissue; when muscular tissue predominates they are known as myomatous tumors, and vice versa. Fibroids of the uterus are found during menstrual life and continue to grow until menopause is reached, and often even after that period women who have had children are peculiarly liable to this form of growth, due no doubt to the congestion which is physiologically present during gestation. Colored are much more prone to this trouble than are white women.

There are three clinical varieties: (1) Insterstial; (2) submucous; (3) sub-serous. They all begin at the interstial, and contraction of the uterus forces them in the direction of least resistance. They may be sessile or have a pedicle. If of sub-mucous form and having a pedicle, they are known as polypoids, and if pushed into the peritoneal cavity and attached to the uterus by a pedicle, we call them pedunculated fibroids.

The symptoms are governed by the situation and type of tumor, for each variety has this peculiar manifestation. We will class them under four general heads: (1) Hemorrhage; (2) pressure producing symptoms referring to the bladder ureters, rectum, etc.; (3) by interference with blood supply; this may cause leucorrhœa, endometritis and salpingitis; (4) interference with the functions of the organ.

Physical signs we will not speak of. By bimanual examination we find the organ asymmetrically enlarged. A firm, hard tumor, non-sensitive, which may or may not be nodu-

lated. We must diagnosticate between this growth and (a) pregnancy, (b) chronic metritis, (c) pelvic abscess, (d) displacements of the uterus, (e) fecal impaction, (f) ovarian tumors, (g) dermoids, (h) extra-uterine pregnancy.

Their course is to increase slowly in size, but should pregnancy occur their enlargement is much more rapid. Their treatment may be divided into (1) palliative, and (2) curative or operative. Under the first, ergot and hydrastis are used. Electricity has its followers. Ligations of the arteries going to the uterus, thereby cutting off its vitality, is another means by which they are dealt with. Myomectomy is the operation in selected cases where the uterus is not so destroyed by the tumor or tumors as to make it impossible.

The patient now being ready for the operation, we will proceed to remove growth by the abdominal route; the tumor is so large we can not bring it through the vagina. It will require quite a long incision to remove this growth, so will make it in the median line, beginning at the os pubes and carrying it almost to the umbilicus. In entering the abdominal cavity we must be careful not to open an intestine. We are now in the peritoneal cavity, so will place the patient in the Trendelunburg position, and as I bring the uterus into the opening you can see it is filled with these growths, numbering not less than a dozen. I shall enucleate one from the anterior face of this organ to show you how easy it is to turn them out of their capsule; this is known as myomectomy. The uterus being so completely filled, it will require hysterectomy in order to remove them all, so will proceed to take this organ out, grasping the fundus with a pair of volsellum forceps, and drawing the mass upward and to the right, we will break down any adhesions that may be present. They are not very great, so will ligate the ovarian vessels. The round ligament is now ligated, so will apply clamps to the ovarian vessels and round ligaments on the uterine side. Now we cut through the broad ligament between these severed structures. The incision is now carried on around in front of the uterus, separating the vesicular peritoneum from its uterine attachment. In so doing be careful not to injure the bladder. The organ is free on its left side, as well as its anterior face, so will draw it to the left side and deal with the right one as we did the opposite.

The next step is the final one in the enucleation, and that is amputation of the cervix above its vaginal junction. This is done quickly with scissors. The canal in the cervix may

now be disinfected with the actual cautery or pure carbolic acid, after which I shall enlarge it and push through it some gauze to drain the serum that will collect in the sub-peritoneal spaces left after closing the peritoneum over the side from which the uterus and adnexa have been taken.

We will now inspect the field of operation to see that all the bleeding has been checked. We find no oozing, so will unite the anterior and posterior lines of the peritoneum which border the wound area with a continuous catgut suture. The strip of gauze which I placed in this pocket, the end protrudes through the os into the vagina, serves as a drain to the serum and will be removed in twenty-four hours. We now close the abdominal wound with silk worm gut sutures. You see each time a suture is introduced my assistant attaches the fascia covering the rectus muscle and pulls it forward, so I will include in the bite of my needle this important structure, for it serves to strengthen this closure as much if not more than any other portion of the abdominal wall. The dressings are now applied. They consist of plain sterilized gauze held in place by strips of adhesive plaster. The dressing will not be disturbed for a week, when I will dress the case before you.

One week later the patient was brought before the class and the dressing taken down. The wound was in every way satisfactory. Since then recovery has been uneventful. The patient was up at the end of fourteen days.

SURGERY—DR. BROWER.

Reported by A. G. Nichol, M.D.

Professor Brower presented J. H. C., a white man 28 years old, with the following history: About twelve months ago an abscess developed upon the side of the chest, gradually enlarging until it became of the size of a hen's egg, when it ruptured. It has persistently discharged ever since. He does not remember to have sustained any injury in this location.

Dr. Brower said that this history, especially the lack of traumatism, and the personal appearance of the patient, pointed to a possibility of tuberculous origin; that the persistence of the sinus was due to a chronic inflammation of a rib, resulting in the necrosis of small particles, and that the only effective treatment would be the thorough removal of the diseased portion of the bone.

The patient was anæsthetized and an incision made to the bone, laying the sinus open. At the bottom was found bone with the characteristic rough feel of necrosis. This was thoroughly removed with a sharp bone curette, and the wound was irrigated with a 1-4000 bichloride solution, dusted with iodoform and packed with iodoform gauze.

The first redressing was made two days later, and patient was doing nicely two weeks after the operation.

MEDICINE—PROF. WOODS.

Joe D., age 23, white, male, married, occupation fireman. Patient complained of a cough which had troubled him since November last. Did not pay much attention to it until he began to lose flesh and grow weak. Claimed he had lost thirty-eight pounds in past five months; present condition marked emaciation and anemia. Cough very violent on arising in the morning and followed by vomiting. Expectoration muco-purulent, also marked dyspnoea. Up to some two months ago had a severe pain in apex of right lung when he took deep inspiration. Voice very husky. Said he had never had a sore throat; attack came on suddenly; one morning on awakening his voice was hoarse and had never cleared up; had been this way some three months. Upon examination palate was found very anemic and pale. Finger ends bulbous, nails cyanotic and slightly incurvated, his hair thin and dry.

Chest examination: Marked depression in right supra-clavicular region; expansion more marked on right side during inspiration; no interval between inspiration and expiration. Apex beat of heart normal. Dulness over entire region, particularly marked on left side. Cavernous breathing marked in second and third intercostal spaces on left side; whispering pectoriloquy and bronchophony.

Patient's appetite remains good; rests fairly well; chills in early part of night (between 10 and 11), which always awaken him; fever followed by sweats. Bowels are regular, no diarrhoea.

Diagnosis: tuberculosis of lung and larynx; also tubercular condition of vocal cords.

S. L., age 36, female, white, married; occupation, peddler. Menstrual history normal. Had one child, labor difficult; was attended by a mid-wife; nursed the child. Complained

of pain in the epigastric and right hypochondriac region, radiating to back and loins and worse at night. Eating does not bring on this pain, but during the attack cannot take any food owing to severity of pain.

During an attack patient pulls out her hair, raises up in bed with eyes widely open, and grits her teeth; muscles all over body jerk, contractions at first clonic, followed in an indefinite period by tonic contractions. Gives no history of falling and hurting herself during an attack; remains conscious; pinching her makes a decided impression. After an attack she is bright and mind clear. Sometimes retains her urine for 24 hours during an attack. Complains of pain in head relieved by pressure. Bowels constipated. Two weeks ago passed fifty feet of tape-worm.

Diagnosis: gastralgia accompanied with hysteria.

L. K., age 37, male, white, laborer, married. Patient complains of growing pain in stomach, relieved by eating, which returns in about two hours after meals. About 17 months ago drinking water after meals caused nausea. Bowels very constipated; about 6 years ago his bowels would move about once a week. For past nine months has been troubled with his eyes; dull pain in eyes, which radiates to forehead; vision disturbed; this attack is intermittent in character and lasts about three weeks at a time. Pupils were dilated (due to atropia, which had been prescribed and he was using). Accommodation to light was good in left eye. Nodules had formed in throat and extended to tongue; ulcers on dorsal surface of tongue. Patellar reflex present; no ataxia; heart normal; nutrition good; muscles soft.

Diagnosis: tertiary syphilis.

Same patient presented to class one week later, after having been on potassium iodide and bicarbonate of soda. Condition was very much improved; ulcers on his tongue practically healed and eyes were decidedly better. Gastric symptoms much improved.

SOCIETY MEETINGS.

MIDDLE TENNESSEE MEDICAL ASSOCIATION.

The ninth regular meeting of the Middle Tennessee Medical Association will be held in Nashville, November 17 and 18. Sessions will be held in the Assembly Room of the Tulane Hotel, which will be headquarters for the meeting. The profession of Nashville will banquet the visiting members. Following is the list of papers for this meeting:

Treatment of Acute Croupous Pneumonia—Dr. Leon L. Sheddan, Williamsport.

Difficult Dentition of Infants, with a plea for the use of the lancet—Dr. J. S. Edwards, Erin.

Chronic Pleurisy—Dr. F. B. Reagor, Flat Creek.

Antitoxin in Membranous Croup—Dr. James N. White, Franklin.

Puerperal Fever—Dr. J. B. McClelland, Murfreesboro.

Reflex Functional Nervous Diseases of Women—Dr. W. J. Jolly, McMinnville.

Ulcer of the Duodenum—Dr. J. W. Grisard, Winchester.

Ataxias; Their Differential Diagnosis—Dr. L. E. Ragsdale, Columbia.

Electro Diagnosis in Nervous Diseases—Dr. Geo. P. Edwards, Nashville.

Gunshot Wounds of the Head and Their Treatment—Dr. R. J. McFall, Cumberland City.

Dangers of Cocaine in Surgical Practice—Dr. Geo. C. Savage, Nashville.

Multiple Pregnancy—Dr. S. S. Crockett, Nashville.

Dislocations of the Testicle; Congenital and Acquired—Dr. A. H. Abernathy, Erin.

Phantom Tumor—Dr. M. C. McGannon, Nashville.

Typhoid Fever—Dr. Leonard Case, South Pittsburg.

Remittent Fever—Dr. S. S. Duggan, Unionville.

Typho-Malarial Fever—Dr. K. S. Howlett, Bigbyville.

Treatment of Typhoid—Dr. Garrett White, Chapel Hill.

How We Country Fellows Treat Some Diseases—Dr. S. C. Bridgewater, Dixon Springs.

Syphilitic Stricture of the Rectum; a case with operation—Dr. A. B. Cooke, Nashville.

Infant Feeding—Dr. Reginald Stonestreet, Paragon Mills.

The Mental Aspect of Neurasthenia—Dr. B. W. Stone, Nashville.

Veratrum Viride in Puerperal Eclampsia—Dr. H. R. Coston, Fayetteville.

PRESIDENT'S ADDRESS—Dr. E. W. Ridings, Dickson.

AMERICAN MICROSCOPICAL SOCIETY.

The American Microscopical Society, at its recent annual session, elected the following officers for the ensuing year: President, Dr. William C. Krauss, of Buffalo; First Vice-president, Professor A. M. Bleile, of Columbus, O.; Second Vice-president, Dr. G. C. Huber, of Ann Arbor, Mich.; Secretary, Professor Henry D. Ward, of Lincoln, Neb.; Treasurer, Magnus Pflaum, of Pittsburg; Executive Committee, Professor S. H. Gage, of Ithaca; Dr. A. Clifford Mercer, of Syracuse, and Dr. V. A. Moore, of Ithaca.

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

The eleventh annual meeting of the Association, which was announced to be held in Memphis, Tenn., Tuesday, Wednesday and Thursday, November 8, 9 and 10, has been postponed till Tuesday, Wednesday and Thursday, December 6, 7 and 8, 1898, on account of the quarantine regulations in some parts of the South. The Gayoso House has been selected as headquarters for the Association.

The following is a partial list of the papers to be read:

1. President's address, Richard Douglas, M.D., Nashville, Tenn.
2. Gunshot wounds, W. E. Parker, M.D., New Orleans, La.
3. Electro therapeutics in medicine and surgery, Jas. McF. Gaston, M.D., Atlanta, Ga.
4. The normal position of uterus defined, A. H. Buckmaster, M.D., Charlottsville, Va.
5. Abdominal opening for intra-peritoneal surgical work, Joseph Price, M.D., Philadelphia, Pa.
6. The choice of material for ligatures and sutures in gynecological surgery, L. S. McMurtry, M.D., Louisville, Ky.
7. Repair in cases of complete tear of the perineum, Howard A. Kelly, M.D., Baltimore, Md.
8. Conservative treatment of the diseased ovary, Jos. Taber Johnson, M.D., Washington, D. C.
9. Thoracotomy for tumors involving the ribs, F. W. Parham, M.D., New Orleans, La.
10. The use and abuse of normal salt solution, J. W. Bovee, M.D., Washington, D. C.
11. A report of fifty prostatectomies, with remarks on the treatment of prostatic overgrowth in the aged, John P. Bryson, M.D., St. Louis, Mo.

12. Remarks on the surgery of the gall-bladder and bile-ducts, A. V. L. Brokaw, M.D., St. Louis, Mo.

13. Past and present surgery of the gall-bladder and bile-ducts, Wm. H. Myers, M.D., Fort Wayne, Ind.

14. The pelvic floor, its functions, injuries and repair, M. C. McGannon, M.D., Nashville, Tenn.

15. When should we operate for appendicitis? A. M. Cartledge, M.D., Louisville, Ky.

16. Ureteral anastomosis, Geo. H. Noble, M.D., Atlanta, Ga.

17. Ovarian cysts as a complication of pregnancy and labor, J. W. Long, M.D., Salisbury, N. C.

18. Incised wounds of the larynx, Edwin Walker, M.D., Evansville, Ind.

19. Tubal pregnancy; primary rupture into the broad-ligament and secondary into the peritoneum; laparotomy, convalescence complicated by septic diarrhea and metastatic abscess of the liver, R. Matas, M.D., New Orleans, La.

20. Removal of partially descended, infected, strangulated testicle, complicated by hernia, R. R. Kime, M.D., Atlanta,Ga.

21. The diagnosis of tubercular peritonitis and indications for surgical treatment, W. L. Robinson, M.D., Danville, Va.

22. Foreign bodies in the œsophagus with report of cases, A. Vander Veer, M.D., Albany, N. Y.

23. Penetrating wounds of the abdomen, Floyd W. McRae, M.D., Atlanta, Ga.

24. The management of pregnancy complicating intra-abdominal tumors, with cases, Rufus B. Hall, M.D., Cincinnati.

25. The rarity of ovarian tumors in negresses, I. S. Stone, M.D., Washington, D. C.

26. Tumors of the breast, W. F. Westmoreland, M.D., Atlanta, Ga.

27. Penetrating wounds of the chest, J. B. Murfree, M.D., Murfreesboro, Tenn.

28. Surgery of the pelvic organs without speculums or retractors, W. H. Wathen, M.D., Louisville, Ky.

29. Report of a case of splenectomy for wandering hypertrophied spleen, Wyatt Heflin, M.D., Birmingham, Ala.

30. Cœliotomy in the treatment of retroverted pregnant uterus when incarcerated, Henry D. Fry, M.D., Washington, D. C.

31. Odds and ends in pelvic surgery, Walter B. Dorsett, M.D., St. Louis, Mo.

32. Treatment of pelvic inflammation, Jas. A. Goggans, M.D., Alexander City, Ala.

33. Mechanical aids in intestinal surgery, J. D. S. Davis, M.D., Birmingham, Ala.

34. The history of myomectomy, Chas. P. Noble, M.D., Philadelphia, Pa.

35. Observations upon cranial operations with report of cases, Wm. Perrin Nicholson, M.D., Atlanta, Ga.

36. Plastic surgery in gynecology, W. D. Haggard, Jr., M. D., Nashville, Tenn.

37. Ventro-fixation for retro-displacements of the uterus, R. J. Trippe, M.D., Chattanooga, Tenn.

38. Removal of five-gallon ovarian cyst from girl seventeen years old, R. R. Kime, M.D., Atlanta, Ga.

39. Transpleural hepatomy by resection of the rib and free incision; recovery, R. Matas, M.D., New Orleans, La.

40. Subject to be announced, W. S. Elkin, M.D., Atlanta.

41. Surgery of the stomach, W. E. B. Davis, M.D., Birmingham, Ala.

Members of the medical profession are cordially invited to attend. Dr. R. B. Maury, of Memphis, is chairman of the committee of arrangements.

RICHARD DOUGLAS, M.D.,
President.

W. E. B. DAVIS, M.D., Secretary.

BOOK NOTICES.

THE TREATMENT OF SKIN CANCER. By W. S. Gottheil, M.D., Professor of Dermatology at the New York School of Clinical Medicine; Dermatologist to the Lebanon Hospital, the Northwestern and West Side German Dispensaries, etc.

This small work given to the profession by Dr. Gottheil fills a place long vacant in the treatment of skin diseases. The medical profession too often closes its eyes to truths that are at its very nose. For years charlatans have been using in a more or less crude fashion the methods that the doctor recommends in his work. That these irregulars have benefitted their employers cannot be doubted. How much more benefit might they not have derived under skillful, intelligent selection of cases and application of the remedies. Excision or ablation is recommended for certain cases, but the application of caustics in some form Dr. Gottheil has found to be more

efficacious. To those not familiar with this method of treatment of skin cancers, this little book will be invaluable.

Int'nat. Jour. of Sur. Co., 100 William street, New York.

DISEASES OF WOMEN. A treatise on the principles and practice of gynecology for students and practitioners. By E. C. Dudley, M.D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's Hospital, Chicago; Fellow of the American Gynecological Association; Fellow of the British Gynecological Society; Corresponding Member of the Societe Obstetricale et Gynecologicale de Paris; one of the founders of the Congres Periodique Internationale de Gynecologie et d'Obstetrique; ex-President of the Chicago Gynecological Society.

This superb work, though upon a subject already written to death, should be in the hands of every American practitioner. The work is in no sense of the term the product of extreme views. A good judgment, that rarest of all attributes with many of our writers, is apparent on its every page. Diseases of women are recognized by the author as being something else than surgical affections.

The arrangement is rather unusual, yet it is what might be expected from a man versed in modern pathology. It may not be the best one for the very young student, but for the practitioner or the advanced student it is desirable. Chapters IV. and XVII. are timely, if they serve to do away with much of the routine and unnecessary, if not quite injurious tinkering with the female organs of generation, when the patients should be treated by internal medication only.

For the general practitioner who understands the significance of the symptoms amenorrhœa, dysmenorrhœa, menorrhagia, etc., the omission of special reference to them will not be out of place, though for the green student a chapter especially devoted to their consideration is of undoubted value. As a book for the advanced student or the general practitoner—one to lie upon the desk or table to be always at hand as a work of reference, or to be studied carefully during lesson hours—there is none better in the language.

Lea Brothers & Co., of Philadelphia, are the publishers.

OBITUARY.

DR. J. T. BIPLE.

Those who attended the Medical Department of the University of Nashville during the sessions of 1895-96 and 1896-97 will be grieved to hear of the death of this popular student, which occurred in Conasauga, Tenn., October 27, last.

He was known in college as an earnest and genial student, well up in his studies. After completing his second year in college, he went before the State Board of Medical Examiners and secured his license to practice. Since that time he has been practicing at Conasauga, except for a short period during the recent hostilities with Spain, when he enlisted as a member of Battery A, Georgia Artillery. His death occurred suddenly, only a few days after his return to Conasauga. He had retired after a hearty supper, on the evening of the 26th, and was found dead in bed the next morning.

The remains were interred in Cleveland, Tenn., where Dr. Bible had been reared, and where his mother and family reside, as well as his many friends.

None will be more affected at this sad news than his recent college mates and teachers, all of whom were much interested in him. His age was only 21 years.

THE
MEDICAL AND SURGICAL BULLETIN,

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Alumni Association, Medical Dept., University of Nashville.

NASHVILLE, TENN., DECEMBER, 1898.

MULTIPLE PREGNANCY.

BY S. S. CROCKETT, M. D.,

PROFESSOR OF OBSTETRICS, MEDICAL DEPARTMENT UNIVERSITY OF NASHVILLE; MEMBER OF MEDICAL SOCIETY STATE OF TENNESSEE, MIDDLE TENNESSEE MEDICAL ASSOCIATION, NASHVILLE ACADEMY OF MEDICINE, ETC., ETC.

This not uncommon departure from the normal numerica reproduction of the human species, while taken by the laity usually as a simple evidence of physical prowess on the part of the father, has many interesting phases for the practitioner.

There are usually two children, sometimes three, rarely four, but five, six, seven and even eight have been reported. Statistics of various countries show that multiple pregnancy may be expected once in every eighty to eighty-five cases. In Great Britain twin pregnancy occurs once in every ninety to one hundred and ten cases; in Germany once in eighty-four cases; in Ireland once in sixty cases. Prussian statistics, based upon 13,000,000 births, show 150,000 twin births; of these in 50,000 both children were boys; in 46,000 both children were girls, and in 54,000 the children consisted of both a boy and a girl.

Triplets occur once in every six thousand to ten thousand cases. Quadruplets are estimated to occur once in every three hundred and eighty-five thousand cases. Quite a num-

ber of apparently authentic cases are upon record where as many as six children have been born. Two well authenticated reports are on record in the United States. In Maine, June 26, 1846, a woman was delivered of six children, two only, however, surviving, together with the mother doing well. In 1888, Mrs. George Hirsh, of Navarro County, gave birth, in Dallas, Texas, to six children, four boys and two girls, all the children being perfectly formed but small. Mrs. Timothy Bradlee, of Trumbull County, Ohio, in 1872, is reported to have given birth to eight children, three boys and five girls. They were hearty and living, but quite small. The mother was married six years previously, and then weighed 273 pounds. She had already given birth to two pairs of twins, and with these three boys and five girls had had, in all, twelve children in six years. She was herself a triplet, and her father and mother were both of twin births, and one of her grandmothers was the mother of five pairs of twins.

It is obvious that certain races and certain families develop cases of multiple pregnancy oftener than others. It is not uncommon to observe frequency of twins among different members of the same family, and the strangest part of this family peculiarity is, that it does not seem to be confined to the female side, as the same man is often the father of twins by different women, and brothers are often fathers of twins by women no way related to each other.

Multiple pregnancy is commonest in first pregnancy, and as if an effort to make up for lost time, is more common in old than young primaparæ. Strange to say, and yet possibly indicating how close to the line of pathology multiple pregnancy belongs, this condition occurs oftenest in families which also produce imbeciles, idiots, victims of club-foot and spina bifida. Multiple pregnancy is frequent in connection with ectopic gestation, one ovum being in the fallopian tube and one in the uterus. Sometimes both ova are found developing in the tubes.

Multiple pregnancy furnishes some very interesting embryological facts. In the case of twins both children may develop from the fertilization of one ovum, or they may develop from the fertilization of two separate ova. In the case of the impregnation of two separate ova there may be a corpus luteum in each ovary, showing that the two ova concerned may be derived one from each ovary, or there may be two corpora luteæ in one ovary, or there may be only one corpus

luteum, showing that both ova were derived from the same ovisac.

The two ova may be fertilized at the same coitus, or at different times and by different males. That this is possible is evidenced by the fact that a woman has been delivered of living twins, one of which was white and one of which was black.

When both ova are in the body of the uterus, if they are attached to the decidua at sufficiently distant points, there will be a distinct decidua reflexa for each ovum; if very close together, the reflexa will be common to both. Whether the reflexa was originally single or double is not apparent at term. Where there are two separate ova developing, each ova will, of course, have its own chorion and its own amnion. The two children are thus contained in two separate sacs of amniotic fluid, the partition wall between the two cavities being composed of two layers of amnion and two layers of chorion, and sometimes by two layers of reflexa. This condition may persist to term, but usually the constituent parts of this partition wall fuse more or less as the pressure of development increases, and at term the amnion only remains, the chorionic and decidual constituents of the partition having disappeared. In extremely rare cases the amniotic partition is also broken down, and the children, though developing from two distinct ova, are found in one amniotic sack. In this variety of twins there are two separate placentæ, and although they may touch each other at their edges, there is no vascular connection between them. Twins from two ova are six times as common as twins from one ovum. The children are often carried to term, and are fairly large and well developed. The sex may be the same, but is usually different.

When the two children develop from one ovum the progress and development is very different. In this case there is only one corpus luteum. There are developed on the surface of the blastodermic vesicle two germinal areas, or one germinal area may split in two. The single ovum has, of course, a single reflexa and a single chorion. There may be only one amniotic sac for both, or there may be a separate one for each fœtus. Thus it happens that at birth the twins, though developing from a single ovum, may be contained in two separate sacs of fluid, the partition wall between the two sacs being composed of two layers of amnion, but never by layers of chorion. It is estimated that only about 8-10 of 1 per cent. of twins, however, are found in a single amni-

otic sac. When the children are developed from a single ovum there is only a single placental mass, to which the cords may be separately or jointly attached. There is always more or less communication in the placental mass between the fœtal circulations in this variety of twins. The children developing from a single ovum perish three times as often as those developing from separate ova, and when carried to term are light, feeble and unhealthy; they are always of the same sex. The abnormal union of the two germinal areas, or the incomplete division, when there is only one, is the cause of the many and varied forms of double monstrosities. It frequently happens that one of the children in this variety of twins develops less rapidly than his brother, and when such is the case, the heart of the stronger overpowers the heart of the weaker through their placental communications, and actually causes a reversal of the blood current of the weaker, and its subsequent death or abnormal development.

Twin pregnancies end prematurely in about 66 per cent. of cases. One embryo may die, be expelled, and the other go on to maturity; the dead embryo may not be expelled until the birth at term of the living. It may then appear as a shrunken mass that has been flattened by the pressure of the growing fœtus.

Excessive accumulation of the amniotic fluid, cystic degeneration of the chorion, placental disease and twisting of the cord are common associates of multiple pregnancy, and these factors are probably closely related to the frequency of prematurity in this variety of pregnancy. In 64 per cent. twins are of the same sex, and there is no evidence going to sustain the popular suspicion that twins are less fertile than other people.

It is seldom possible to recognize the existence of multiple pregnancy until one child is delivered. It is rarely possible, in the presence of thin abdominal walls, to palpate two heads and make out a multiplicity of extremities. The recognition of two fœtal heartbeats, with points of maximum intensity some distance from each other, would definitely make out the diagnosis.

One of the curious phenomena connected with this subject is the well authenticated fact that two well developed living children are sometimes delivered of the same mother, one four or five months after the other, both children being well developed and apparently at term. Again, frequently in

premature deliveries, in multiple cases, it is observed that there is a great disparity between the development of the two embryos. One child may appear quite at time, while the other may present evidences of only six weeks or two months development.

These facts have led some obstetricians to maintain that it is possible for a second impregnation to occur while the uterus is already pregnant with the first. The discussion of this question has filled volumes and yet remains subjudice.

There are many practical points connected with this subject. The presentations in multiple pregnancy vary as in normal pregnancy; the children may be in any position; abnormalities seem to keep pace with prematurity. Statistics would indicate that the head presents in about 49 per cent., head and breech in 31 per cent., both breech in 8 per cent., head and transverse in about 6 per cent., breech and transverse in about 4 per cent., both transverse in a smaller number.

In multiple deliveries the labor, barring abnormal presentations, is usually easy, owing to the smaller size of the children, the second child following the first in a short time, sometimes the interval being as long as an hour. As the stage of dilitation is complete at the expulsion of the first child, a protracted interval is occasioned only by weakness and inefficiency of the pains. The placentæ are usually expelled after the birth of the second child, but one, or indeed sometimes both placentæ, when two are present, precede the second child. The third stage of labor in these cases is usually protracted beyond that of single birth cases, and calls for the exercise of more care to guard against hemorrhage. It should be borne in mind that owing to the possible communication in the placentæ between the circulations of the two children, both proximal and distal ends of the cord should be ligated.

The simultaneous entrance of both children into the pelvis not infrequently gives rise to delay and danger. When both children present at the brim previous to rupture of the membrane, it usually happens that with the escape of the waters one advances while the other glides to the side. If interference is called for at this time, the membrane should be ruptured and the nearest presenting part brought down while the other is pushed up out of the way.

In case of head and breech presentation, the head should be brought down by preference to prevent subsequent locking

of the heads. After rupture of the membranes, they may persist in descending together, and become locked in whatever position they descend. When the two heads continue to descend together into the pelvis, unless this cavity is very large and roomy, or the children very small, as the advancing head descends deep into the pelvis, the second as it enters the brim becomes jammed against the neck and thorax of the first, and progress is impossible. The second child may then be pushed up and the first delivered with forceps. In case one of the children presents by the breech and the other by the head, if the breech descends first, and the head of the second child descends into the brim before the passage of the first child's head, the heads become locked in the pelvis with one trunk delivered. It is rarely possible to disengage the lock by the introduction of the hand. The sacrifice of one of the children then becomes necessary, authorities differing widely as how best to proceed. Most authorities recommend in this condition, the decapitation of the first child; others stoutly maintain that forceps should be applied to the head of the second child, and the delivery be effected in that way.

Mention should be made of the perplexities in diagnosis, where one child sits astride of the other, which is transverse. A thorough intra uterine manual examination only will clear up the cause of obstruction in these cases.

THE MENTAL ASPECT OF NEURASTHENIA.

BY BARTON W. STONE, M.D.,

Superintendent "Morningside Retreat;" Formerly Superintendent Western Kentucky Hospital for the Insane; Member American Neurological Association, American Association Asylum Superintendents, Med. Soc. State of Tenn., Mid. Tenn. Med. Ass., Nash. Acad. Medicine, etc., etc.

The causes of neurasthenia are overwork, various exhausting diseases such as typhoid fever, syphilis, sexual excess, abuse of narcotics and stimulants. Inherited nervous instability may predispose a subject to neurasthenia. Now while the disease is essentially a nervous prostration, its mental aspects are very prominent and invariably present. These often so closely border upon the domain of insanity that they have supplied a euphemistic term for fully developed insanity, so that now there are very few cases of insanity confessed to be such among the upper classes particularly, excepting those subjects wildly maniacal, or melancholy almost to the suicidal degree, or sunk into the lowest depths of imbecility.

Many a family will bless the memory of Dr. Beard for having introduced the term neurasthenia, or for specifically enlisting neurasthenia into the category of distinct diseases. It has happily served to erase from the family escutcheon many a stain which insanity is popularly supposed to cause. It is only necessary to claim, in a mild form of insanity, that the patient is laboring under the almost fashionable disorder, nervous prostration. This is well so far as the public delusion is concerned. If, however, the family of an unfortunate patient, who is really the subject of insanity, though under the misnomer neurasthenia, should be led still further to try to bolster family pride by refusing to employ proper measures for treating the insane, a fatal blunder may be committed, one indeed which may be little less than criminal.

I was called once to a case of dementia agitata. The subject had lost all intelligent grasp apparently, but tossed about wildly and refused food. Such a case in the acute stage, as this was, is a favorable one for gradual but slow and complete recovery. But no sort of case so much requires the services of the skilled attendants, appropriate environment and proper medical management. It was persistently denied

in this case that anything but nervous prostation existed, and the patient, not having the services of the special attendant, I am inclined to believe, died because she could not be fed sufficiently.

I had another patient who recovered very slowly, I am sure, because of having been treated for neurasthenia for six months by a modification of Mitchell's rest treatment, when she labored under simple primary melancholia. The close confinement to bed and the isolation of the rest treatment tended to counteract all the recuperative energy which her brain possessed; and I believe she would have been imbecile to-day or dead if an opposite course had not been adopted in her management. The exercise, fresh air, lively companionship with little special medication finally restored her. She was insane eighteen months.

The features of this case exhibit a phase of the danger of calling purely mental disease neurasthenia.

Dana gives the following statement of the symptoms of neurasthenia; it is replete with suggestions of mental aberrant action. He says:

"The patient complains of a general feeling of mental depression. The man who once delighted in work can hardly force himself now to go to it. He loses power of originating plans and of mapping out work. He absolutely cannot pursue a line of thought or a single line of work for a long time, but sits idly at his desk or goes back to his home in depression and despair. He is oppressed with a fear that he will never get well, or is going to become insane or paralyzed, or that some dreadful termination of his present malady is bound to occur. . . . Neurasthenia appearing at the time of adolescence is much more apt to be associated with a primarily weak constitution. The mental symptoms are mainly predominant and the malady takes more often the character of a hypochrondiasis, with some fixed ideas or morbid fear, such as suggests an incompletely developed paranoid," etc.

Climacteric neurasthenia is often associated with melancholia and other psychoses. Indeed, nearly all the various and numerous forms of the kaleidoscopic disease tend in their advanced stage particularly to mental deterioration. Gray, Starr, Gowers, Peitzel, besides Beard and Dana, emphasize the mental features of nervous prostration.

Besides the indications above noted, there are a multitude of every sort of nervous affections or sensations, referred to every organ in the human economy, which are purely ne-

rasthenic in origin. It is generally conceded now that neurasthenia is entitled to a place in the nomenclature of diseases. The disease may run its course without any mental aberration, but in a large proportion of the cases there is a progressive tendency toward insanity, many of them becoming victims of very unfavorable types.

I saw yesterday a patient of Dr. Ewing's who had had a slight attack of neurasthenia from overwork and indigestion, who was being treated at a well known sanitarium. Abstinence was enjoined from meat, eggs, milk and other forms of nourishment, and his diet was absolutely dry food specially manufactured by the sanitarium company. He lost weight daily and grew worse in every way. He told me it took him an hour to masticate an ounce of the desickated food he received. The starvation developed mental symptoms which had never previously existed, and finally engrafted a decided melancholia, and the trifling nervousness he had previously, which scarcely deserved the appellation "neurasthenia," was increased fourfold. I regard his condition as critical and ominous of evil to him. I apprehend the rapid development of paretic dementia.

The frequency and facility of the development of mental aberration upon or in the course of a nervous prostration should warn us to protect the subject as far as possible in our treatment. The mental aspects of neurasthenia should be closely watched for the first signs of a developing melancholia, mania or dementia. It is often true that the onset of insanity is so insidious that the border line between it and sanity is not observed, and the conviction very gradually dawns upon the friends, often many weeks or months after insanity has fully developed. The symptoms of melancholia, for instance, are often obscured by drugs employed in treating nervous prostration, which puts to sleep the delusions temporarily to be aroused when the influence of the drug is gone, or when the habit of morphine or cocaine taking has been incurred. So the demonstrations of the maniacal may be controlled by medicine, and mislead physicians, whilst the imbecility of the demented may not be regarded of serious import.

A very common sequel of neurasthenia, induced by sexual excess or syphilis or alcoholism is paretic dementia, one of the most unfavorable of all forms of insanity.

A patient left Morning Side yesterday afternoon who had labored under a stubborn neurasthenia for several years from

sexual vice. He is thirty-three years old and single. He has for a month been bothered with severe nightmares. Lately these have become positive hallucinations, both visual and auditory. He has repeatedly, during the night, run screaming from his sleeping room to escape an apparition, or on account of hearing persons outside the room conspiring to take his life. He charges his stepmother with having instigated his murder. His brother, who brought him to Morning Side, wanted him actively treated, medically, and carefully managed, "for fear he should go crazy." He is self-conceited and arbitrary; accepts no counsel unless it meets his own judgment. He has induldged since boyhood in frequent sexual intercourse. He is very imperious, and especially threatens to take the life of his stepmother.

His tendency seems inevitable to paresis of an aggravated type, and probably incurable. Active and prompt treatment might save him.

These cases of reported nervous prostration are but samples of the greater number of applications I have received for admission to Morning Side. So general is the desire and effort to deceive the community as to the existence of mental infirmity in the family, that I have to weigh carefully the statements given me in the letters I receive as to cases of so-called neurasthemia. Where an opinion is asked as to the prospects of cure, or for other purposes, I must believe that often the friends of the patient honestly deceive themselves, the wish is so frequently father to the thought. Many persons seem to be deaf to argument adverse to their view, and stubbornly contend against any theory which suggests insanity.

The tendency of the mental aspects of neurasthenia to degenerate into insane features, when it is observed early, may be averted by simple measures. The environment of the patient should be looked after. Regard should be had for the patient's comfort and entertainment, and he should be separated from unhealthy and disagreeable associations, and the patient's physical constitution, including all the functions, should have thorough attention. Strict investigation must be instituted to learn the causes which may have induced the neurasthenia. If syphilis be the cause, we have most potent remedies for its eradication in mercury and the iodides, which must be pushed to very large doses daily—a

dosage of over four hundred grains of the iodides a day may be very soon, in less than a month, reached in treatment.

Rheumatic or gouty subjects, the tubercular, the malarial, et al., should all have prompt treatment. Any of them may contribute to the production of a given case of insanity, or any one of them may retard recovery, even if not the cause. The sensualist, gambler, speculator, student, business man, should each have his habits appropriately regulated. Outdoor exercise, sleep, the appetite and the digestive functions should be regulated.

I have presented this brief paper to call the attention of the profession to the danger certainly existing that the insane neurasthenic may be neglected by the family or the physician on account of failure to recognize promptly that the nervous symptoms have increased until they have issued in insanity, and that treatment should be undertaken at once—this both to guard the patient's mind and to protect himself, family and community against an outbreak of violence.

Further, that mild types of insanity are often honestly mistaken for nervous prostration, and the unfortunate subject kept at home or conveyed to a sanitarium, where the special treatment and management of insanity may not be understood at all; and the patient fail to secure the benefit of the promptest skilled treatment.

A husband once wrote me that his wife might be slightly wrong in her mind, and that it was necessary to convey her somewhere, but if I had any crazy people in my sanitarium that he would not bring her to me. My reply was that if she was insane she should go where the insane are treated, in order to get the treatment which physicians there should know was best suited to relieve insanity.

A gentleman in Nashville asked me to recommend a sanitarium in the North for his wife, who, he said, only had neurasthenia. I found her to have positive delusions. She was physically strong and not neurotic. I recommended several excellent sanitariums, all of which he objected to on account of some insane inmates being admitted to them. He took her to a sanitarium in New York State where none such were treated, and had to return to New York in a few days after reaching home to remove her because she was found to be insane, though not violent.

Many of these subjects can be properly treated at home,

and with no danger of violence, but when it is necessary to convey them to hospitals, let them be sent to physicians who *desire* to treat such cases, and who have had experience which should qualify them, even though it were to place them in the public hospitals for the insane.

THE EPILEPSY OF NAPOLEON.

(Concluded from last month.)

Zola, too, in the "Roman Naturaliste," gives us this point on the inspiration of Balzac: "He worked under the operation of certain impulses which are a mystery to us; he was the victim of a capricious power. At times for all the gold in the world he could not have written a line, at other times, in the evening, in the middle of the street or in a morning orgie, a burning coal kindled his brain, his hands, his tongue; on a suddeu a word awakens hidden ideas which lie fermenting. So is the artist an humble instrument of a despotic power."

"My passions," says Burns, "are wild as demons if they do not fiud a vent in verse." After writing he felt relieved and consoled. Such are the confessions of Mahomet, St. Paul and Dostoyewsky. In "Besi" he writes: "Suddenly something opened before him, an extraordinary internal light illumined his mind; there are moments which do not last more than five or six seconds, in which you suddenly feel the presence of eternal harmony. This phenomenon is not terrestrial, nor celestial, but something that man in his earthly development can scarcely endure; he would be obliged to transform himself physically or die. It is an ineffable feeling. Suddenly it seems as if you were put in touch with all nature. There is neither tenderness nor joy; there is no forgiveness, because there is nothing to forgive; there is not even love! Oh! it is a feeling higher than love. The joy that fills one is terrible; if this state should last more than five seconds the spirit could not resist; it would have to vanish. During these five seconds I live an entire human existence, and for it I would give my whole life, and should not feel I were paying too dearly." "Are you not epileptic?" "No." "You will become so. I have heard it said that one begins in just that way. A man subject to this disease [evidently it is Dostoyewsky himself] has described minutely the

sensation which precedes the attack, and listening to your description it seemed as if he were speaking. He also said that it would be impossible to sustain this state more than five seconds. Do you remember the vase of Mahomet? While it was being filled the prophet flew to paradise. The vase is your five seconds, and paradise is your harmony; Mahomet was epileptic." ("Besi," Vol. i.) And in the "Idiot": "I remember, among other things, a phenomenon which preceded his attacks of epilepsy, the weakness, the mental marasmas, which proved the disease. There were moments in which his brain suddenly became inflamed, and his vital forces all at once rose to a prodigeous degree of intensity. The sensation of life, of conscious existence was increased tenfold in these swift moments. A wonderful light burned in his mind and heart. All agitation became calm, all doubts, all perplexities, melted into a vast harmony. But these radiant moments were but the prelude to the last second which was immediately followed by the attack. This second was truly iueffable. When, later, the prince having recovered, reflected upon it, he said himself: 'If these fugitive moments are owing to sickness and the suspension of normal conditions, then they are not of a higher life, but, on the contrary, one of a lower grade. What matters it if it be a sickness or an abnormal tension, when in looking back, recalling and analyzing it, the greatest degree or harmony and beauty are included?'" In this moment did he not have visions analogous to fantastic dreams produced by intoxication with hasheosh, opium or wine? He could easily judge all these things when the attack ceased. These moments are marked by the extraordinary exaggeration of the inner sense; in the last moment of consciousness which precedes the attack the sufferer can say with full consciousness of his words, "For this moment one would give a lifetime." And without doubt the epileptic in this instant understands the allusion of Mahomet when he said that he visited all the mosques in less time than it took to empty his vase.

That we may see how perfect the correspondence is, compare this description of the psychic epileptic attack with the inspiration of genius, as authors describe it. Berlioz says: "A voice comes from my palpitating chest; it seems as though my heart, under the irritation of an irresistible force, expands as to be dissolved by expansion. Then the skin of my whole body aches and burns, I flush from head to foot. I wish to scream, call the assistance of some one who would

console and guide me, and prevent my being destroyed, and detain the life which is ebbing away. I have no thought of death during this death, and the thought of suicide is unbearable, I wish to live, live with energies a thousand fold redoubled; it is a prodigious attitude of happiness, and a mania for activity, which can not be quelled except with devouring, furious realization, according to the measure of its intensity." Goethe said that the melody of his verse, like a tiny, independent, impalpable thing, agitated within him before the words were formed, or the thought itself took shape. And Beethoven said, "I have told it, but they did not understand me, as they can not understand the power of artistic inspiration, as they do not understand that I act in accordance with internal laws, unknown to the vulgar, and that I cease to understand myself when the hour of enthusiasm is passed. Fools! In their cold exaltation, in their free hours, they select a theme, they develop, enlarge it, taking care to repeat it in another tone; they add by rule, wind instruments or some strange combination. All that is very reasonable, very polished, well stndied; but could I work so? They compare me to Michael Angelo. Very well; how did the author of Moses work? With fire and furor; in a frenzy, he then made great strokes in the immovable marble, and forced it in spite of itself, to unlock his living thought sepulchered in the block; and I too compose thus. For me inspiration is that mysterious state in which the entire world seems to form a vast harmony, when every feeling, every thought, echoes in me, when all the forces of nature become my instruments, when a shuddering shakes my whole frame, when my hair stands on end."

These expressions demonstrate that where genius shows itself in the highest form, and where there is the greatest differentiation from the normal man, in the moment of inspiration he is more or less in that state of unconsciousness which, according to many, is the true characteristic of epilepsy.

"One of the characteristics of genius," writes Hagen, "is the irresistable impulse of the act." And thus is explained by Kant, Coleridge, Voltaire and Cardano, how works of genius can be created in sleep, as this is also a state of perfect unconsciousness, and how the double personality of genius, in the state of inspiration and in the state of normal mind, is a mystery to itself. The most salient characteristic of genius is therefore unconscious creation, which is the most singular, if not the sole phenomenon of epilepsy; and from that, to

deduct that it is a specially divine variation of that *morbo sacro* (I do not repeat this synonym without reason) is a step which, even to the least learned in psychic materia, is not difficult. For those who do not know that in many cases the entire attack consists only in a violent excitation of a single sense followed by amnesia, I mention a patient of mine who is seized by a motorial attack, now only by vertigo accompanied by the sight of a bright yellow light; and another whose attack, preceded by aura, consisted in atrocious crural and brachial neuralgia, followed by amnesia. I will add that in some not only the attack, but the whole life, records the psychic phenomenology of the epileptic; but over and above all the example adopted here of Napoleon is enough.—Lombroso: Rivista d'Italia, March 15, 1898; translated by A. Goodwin Culver for the Journal of the American Medical Ass'n.

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EDITORIAL.

THE OPERATIVE TREATMENT OF INTESTINAL PERFORATION IN TYPHOID FEVER.

This subject is one which interests the physician and the surgeon to an equal degree and deserves careful study by both, since in some cases life can be saved by prompt action.

There are no more interesting studies in medicine and surgery than those advances which meet conditions heretofore considered beyond relief, and there are few conditions more terrifying to the physician and to the patient's friends than perforation of the bowel in typhoid fever. Theoretically, at least, it would seem that with the progress which has been made in abdominal surgery operative interference is beyond all doubt the chief possibility for the recovery of the patient, yet as a rule both physicians and surgeons have in the past felt timid about resorting to so grave a surgical procedure in the face of the profound exhaustion of the patient from dis-

ease. In this connection the statistics which have been recently collected and published by Keen give us clearer ideas of our duty under these circumstances than any others with which we are acquainted. One of the first points impressed upon us by these statistics is that delay is an exceedingly dangerous thing. Thus, as Keen points out, of the sixty patients operated on for perforation in typhoid fever, 26.7 per cent. recovered when the operation was done within twelve hours; whereas the mortality was total when as long as twenty-four hours had elapsed, except in three instances, in one of which the operation was done twenty-six hours after perforation and the other two between two and three days. As a result of these statistics Keen enunciates the law that if operation is not done within about twenty-four hours after the perforation there is practically no hope of recovery.

It is stated in La Presse Medicale of May 18, 1898, that Guecehewitsch and Wanach have recorded five instances in which Russian surgeons have operated for intestinal perforation. In 1891 Netschaieff and Troianoff operated upon a man aged thirty-one years, who presented signs of perforation. The operation was practiced six hours after the entrance of the patient into the hospital. Marked evidence of serious peritonitis were found and fecal matter was in the peritoneal cavity. Resection of the perforated portion was performed. Death followed and autopsy revealed typhoid ulcers in the ileum. In 1893 the same authors operated upon a man of twenty-eight years, who presented similar symptoms. On entering the hospital a diagnosis of the ambulatory form of typhoid fever was made, with intestinal perforation. The operation took place seventeen hours after entrance. A general sero-purulent peritonitis was found, the fluid being filled with fibrinous flakes. Quite a large perforation was present; four centimeters of the intestine was excised. The abdominal wall was not immediately sutured, but the opening in it was packed with sterile gauze, and complete recovery followed.

A third case was that of Kohlzoff and occurred in a man of

twenty-four years who had typhoid fever and congestion of the lungs. He had symptoms of perforation with excessive fever. The operation was performed four hours after the perforation. Sero-sanguinolent fluid was found in the peritoneal cavity, and twenty centimeters from the ileocaecal valve there was a perforation. A resection of the perforated portion of the intestine was performed. Death occurred in two days. At the autopsy numerous typhoid ulcers were found near the point of ulceration.

In the fourth case, belonging to Trianoff, a patient twenty-nine years of age had been sick for fifteen days with fever. He was seized with violent pain in the belly followed by intense chills, vomiting and hiccough. There was abdominal swelling and general pain. The symptoms were those of perforative peritonitis. The operation began sixteen hours after the accident. Abundant sero-purulent fluid was found in the abdominal cavity and perforation of the intestine had occurred ten centimeters from the ileocaecal valve. Resection of the perforated segment was performed and death occurred fourteen hours afterwards. The autopsy revealed typhoid ulcers in the ileum.

In addition to these cases Guecehewitsch and Wanach report five more. The first of these was a man thirty-six years of age, who had had typhoid fever fifteen days. After eight days he had had bloody stools, violent pain in the belly followed by intense chills, vomiting and hiccough. The belly was swollen and the pain was general. The pulse was 120, the temperature febrile. An operation was performed two hours after the perforation. On exploring the intestines two perforations were found, one two centimeters in diameter, the other much smaller. Twenty centimeters of the intestine was resected, and death followed in about two hours.

At the autopsy ten ounces of fetid pus was found in the belly. The parietal and visceral peritoneum were covered with punctiform hemorrhages. The part of the intestine resected was thirty-seven centimeters from the caecum.

Their second case was a man of twenty-four years who had been ill some time with typical typhoid fever. Seven days after entrance into the hospital he was seized with violent chills and fever, and all the symptoms of perforative peritonitis. The operation was done seventeen hours after the accident, ether being given after a preliminary injection of cocaine. Perforation of the intestine was found. The mesenteric glands were enlarged and were adherent to the intestine in places. Thirty centimeters of the intestine was resected. Death occurred in six hours after the operation. The autopsy revealed profound typhoid ulceration at the lower extremity of the ileum. There were also signs of catarrhal pneumonia.

The third case was in a young man of nineteen, who had been sick five days. His fever was high and he had bloody stools. Foor weeks after his entrance into the hospital he had perforation of the intestine. His condition remained grave, and on opening the peritoneal cavity it was found to be filled with bloody fluid and there were intestinal adhesions. Death occurred in three days. Again the autopsy revealed perforation and ulceration.

A man of twenty-seven presented mild symptoms of typhoid fever. Six days after his entrance he was seized with violent pain in the belly and with chills and sweating. There was also meteorism. Twenty-four hours after these symptoms the operation was performed. Again the belly was found filled with sero-purulent fluid. Thirty centimeters of the intestine was removed and contained four ulcers. Notwithstanding injections of saline solution the patient died eight hours after operation. Again the autopsy confirmed diagnosis.

In the fifth case a man of twenty-nine entered on the seventh day of typhoid fever; six days later violent pain in the caecal region came on with moderate fever. Surgical intervention took place thirteen hours after the accident. The abdominal cavity was filled with serous fluid. The walls of

the intestine were edematous. Resection was performed. Death occurred in three days. The autopsy revealed the characteristic lesions and pneumonia of both bases of the lungs. Altogether these authors quote seventy-one instances of perforation in the course of typhoid fever, with seventeen recoveries. The number of deaths in operation for perforative peritonitis in typhoid is necessarily high.

In regard to the time for intervention it is evident that much depends upon the promptness with which the surgeon proceeds to the relief of his patient, and it would seem that good results are apt to follow only in those cases in which the intervention is immediate or where nature has protected the peritoneum by inflammatory exudations which cause a limited peritonitis. In regard to the anesthetics which may be used in these cases, these two Russian surgeons believe that either chloroform or ether is satisfactory, provided the myocardium, the lungs, the liver, are in fair condition. In other instances they think that mixed anesthesia is well. They produce local anesthesia by cocaine and find that smaller doses of chloroform and ether are needed under these circumstances. Washing out of the peritoneal cavity in these cases is of the greatest possible importance, normal saline solution being employed.—The Therapeutic Gazette.

SECTION ON MEDICINE.

UNDER CHARGE OF W. L. NICHOL, M.D.,

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EXCESSIVE TEMPERATURE IN PNEUMONIA.

Donier (These de Lyon, 1898) has studied the question of high temperature and prognosis in pneumonia. Some of the observations which he quotes were received by him from Friessinger. From his investigations he comes to the conclusion that in some cases of pneumonia a high temperature is of good rather than of bad omen. In some cases he observed temperatures ranging from 41.0° to 42.4° c. In these cases the mortality reached 13.3 per cent., while in cases in which the temperature varied between 39.5° and 41° c. there were 19.85 per cent. deaths, while in those between 38° and 39.5° c. the mortality was as high as 23.07 per cent. The point of importance in these cases is to note the character and frequency of the pulse in conjunction with the temperature. A high temperature with a good pulse denotes that although the disease is severe, the tissues are reacting to it, and that probably it will exhaust itself in a short time. When, however, the pulse is rapid and the temperature high, it shows a less resistive power in the economy. On the other hand, should the temperature be considerably lower, 38° c., and the pulse rapid, it points to a severe degree of infection, and little or no reaction on the part of the tissues. Thus high temperature in pneumonia is not necessarily an alarming symptom, and many such cases do extremely well.—British Medical Journal.

NEPHRITIS WITHOUT ALBUMINURIA.

Arthur R. Edwards, M.D., ("The Diagnosis of Nephritis

Without Albuminuria."—The American Journal of the Medical Sciences, October 1898).

The author summarizes the chief conclusions of his paper as follows:

1. Carefully repeated routine chemical and microscopical examination of the urine every twenty-four hours usually, but not invariably, detects acute and chronic nephritis.

2. The diagnosis of the albuminuric, and how albuminuric type of the nephritides is aided by searching examination of other viscera and parts, etc., by a disturbance of cardio-vascular changes, retinal involvement, etc.

3. These visceral or somatic changes usually present in nephritis may be lacking in concrete instances, or be capable of other or diverse interpretation, as atheroma, etc.

4. The urinary findings most essential to the diagnosis of nephritis may be lacking, as in many other signs and symptoms of minor dignity.

5. Nephritis may be unattended by albuminuria. Such nephritis is usually interstitial in type.

6. While certain instances of non-albuminuric nephritis correspond to the type described by Dr. D. D. Stewart, yet non-albuminuric nephritis may not exactly correspond to the said type, since acute nephritis, chronic parechymatous nephritis and chronic interstitial nephritis may occasionally occur without albuminuria.

7. Casts should always be searched for. They are more constantly found than is albumen, yet they seem, in certain instances, to betoken renal degeneration, rather than inflammation. They are not invariable in nephritis, nor are they invariably nephritic.

8. Future clinical caution and pathological examinations will probably increase the number of cases of non-albuminuric renal inflammation of acute, subacute and chronic types.

9. Non-albuminuric nephritis is of special importance in life insurance and kindred examidations, and in practice since prophylactic measures may be instituted, and the prognosis obviously influenced.

SECTION ON NEUROLOGY.

UNDER CHARGE OF T. L. MADDIN, M.D.,

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VERATRUM VIRIDE IN PUERPERAL ECLAMPSIA.

At the annual meeting of the Medical Society of Tennessee for 1897, F. S. McRady, M.D., read a valuable paper on the above subject, with a report of two cases: The first patient was a stout, healthy-looking, plethoric woman. She had been in labor about sixteen hours. On digital examination the os was well dilated and the head engaged in the pelvic cavity. The pains were worrying, inefficient, and no progress for several hours. Without any other premonition I noticed her eyes were spasmodically fixed for a few seconds and the lids working rapidly, the face distorted and the head drawn to one side almost to the shoulder; then there supervened tonic general spasm, the tongue badly bitten, with bloody saliva, dark, purple, suffused face; the tonic spasm was followed with rapidly repeated clonic seizures. The delivery was accomplished in about ten minutes with forceps, the patient still unconscious, but the convulsions continued with but little abatement. Her pulse was very rapid, small and difficult to recognize. There was no time she could swallow any remedy. Chloroform was given, but with little result; also chloral by enema, but it was retained after over one hour of futile attempts in using various remedies. The flooding was large, therefore venesection was not practiced. At this juncture twenty drops of "Norwood's Tincture of Veratrum Viride" was administered hypodermically; in a few minutes the convulsions ceased, pulse was fuller, slower and softer, breathing deeper and more natural, and she passed into a quiet sleep for more than two hours, when she was awakened by the cry of the baby; complained of her tongue and arm, but was totally oblivious of what had transpired in the birth of the infant and the terrible ordeal through which she had passed. Her condition remained uninterruptedly good. A mere trace of albumen was found in the urine.

The next patient was a stout, rather plethoric primipara. Labor commenced with convulsions, and they were repeated at intervals of twenty and forty minutes. The os was dilated to about the size of a silver half dollar. Chloroform and chloral were used for four hours, only making the interval between the convulsions a little longer. She was now, under chloroform, delivered of two dead babies; but whenever the chloroform was suspended the convulsions returned worse than before. At this juncture twenty drops of tincture of veratrum viride was administered by mouth, with the result of only one paroxysm, and it occurred before the medicine had time to be absorbed; the pulse became stronger, slower and better developed; the recovery was good and without further trouble; the urine was not examined; there was much loss of blood after the delivery, but without any beneficial effect upon the paryoxysm.

Dr. McRady's paper was full of interesting matter, but my object in making this reference to it was to make prominent the therapeutic value of veratrum viride in puerperal eclampsia; also to claim for it a like value in other forms of eclampsia.

Prof. Thomas Menees was scheduled to discuss the paper. He said the pathology and therapeutics of puerperal eclampsia was ably presented by Dr. McRady; that he had a strong claim for veratrum viride in the treatment of this formidable neurosis; that he (Menees) had followed the advice of Schroder in the liberal use of anesthetics, and Gooch in venesection; that failure in the use of these remedies was mainly due to timidity of the doctor in charge of the case. While in a county and village practice of seventeen years he never lost a patient from eclampsia, but since he came to Nashville he has no such triumph to boast of. There is something about the air and habits of the people in cities that incapacitates them as proper subjects for these herculean remedies. With an experience of a half century, and not very limited, with his attention devoted to this subject, he would be very chary in the selection of cases in which he would give bold doses of veratrum viride.

Dr. S. T. Hardison, Lewisburg, commented favorably upon the paper. He approved of what Dr. Menees had said about the discrimination of cases in eclampsia. For practical purposes we may divide them into two classes, plethoric (ordinarily primiparæ); the other, anemic (most often, multiparæ) generally caused by a toxic condition of the blood.

It is not reasonable to treat these two conditions with the same remedy. Dr. H. claimed that puerperal patients displayed great tolerance for veratrum viride, but it is a remedy that should be used with great care.

Dr. W. Frank Glenn asked if there is any record of a death by veratrum viride.

Dr. Happel said: "If Dr. Hardison will go with me to the graveyard in my town, I will show him a grave where the subject was killed by veratrum viride, given by mistake to a sick child by its mother.

Dr. T. L. Maddin, of Nashville, said: "I have listened with much interest to the valuable paper of Dr. McRady. I do not propose to criticise or discuss it, but it gives me pleasure to endorse it. There is no doubt in my mind the therapeutic value of veratrum viride is in *its inhibitoryeffect* in staying the *systolic function of the sympathetic nervous centers.* These physiologic antagonistic forces—systolic (sympathetic) and diastolic (spinal accessory)—determine the harmonious rhythm, not only of the heart and blood vessel and peristalsis everywhere, but every *sarcous molecule* of matter is under the control of these antagonistic nerve forces. In health their function is in harmony; in disease it is the discord of ataxia, one of the most terriffic illustrations of which is puerperal eclampsia. When we have brought our comprehension to the full demand of this physiological and pathological principle in all forms of peristalsis, in health and disease, whether it is in the voluntary or the involuntary muscular system, we have not far to go to recognize the value of veratrum viride in puerperal eclampsia. All forms of spasm are eclampsia, and an analysis of their pathology is made up of the same factors, whether it is cramp colic of the stomach and intestine, the womb in its ataxia, that sometimes accompany parturition, angina pectoris, or that other grand eclampsia called puerperal, which asserts close kinship to epilepsy. The therapeutic indication in each case is the same. To remove the cause, appeal to the sensory function with an analgesic remedy (morphia, nitro-glycerine, etc.) and a diastolic (veratrum viride) and a systolic (digitalis) remedy, giving each or all at the same time, according to the demands of each particular case.

There seems to be a fear on the professional mind in reference to the toxic effect of veratrum viride which is conspicous in the discussion of Dr. McRady's paper. I once shared that fear, but experience in the use of the remedy has re-

moved that great anxiety. A report of one case is sufficient. A family in our city included five children, all vigorous, the youngest about twelve months old; from whatever cause, when they were sick and had fever, they were threatened with spasms. I ordered one ounce of Norwood's Tincture Veratrum Viride, and instructed the mother to give one drop every one or two hours, whenever any of the children had fever, until she could notify me of the sickness. About twelve months after this time the youngest child was seized with membraneous croup and high fever. It so happened that it was about four hours before I could see the patient. When I arrived I found the baby apparently in a dying condition, pulse 25 to 30 to the minute, skin as white as the sheet he was resting upon, with a little bluish color of the entire surface; breathing about ten to twelve to the minute, retching and vomiting immense quantity of frothy mucus. On making inquiry as to what they had given the baby, they referred to the fever medicine I had prescribed about one year past, and showed the vial labeled "Veratrum Viride, dose, one drop every one or two hours, as needed for fever." The parents said this was the first time they had needed it, and when found the stopper was out of the vial, and there was only about a half teaspoonful in the vial, and that it was very thick and would not drop, hanging to the mouth of the vial, from which it was loosened with the finger, giving half of it, and, as the child did not improve in fifteen minutes, the remainder of it was given. Thus it will be seen that this twelve months infant had taken, in less than thirty minutes, all of the medicinal value of one ounce of Norwood's Tincture of Veratrum Viride—the alcohol having been evaporated. I gave whiskey, paregoric, applied mustard to the extremities, kept the head as low as the level of the body, with a gradual recovery in six hours. The mucus vomited and cough was enormous, considering the age of the infant. There was no vestige of the membraneous croup after this ordeal. This experience removed all my fear in the use of this valuable remedy, and taught me that it is the best remedy at our command in treating membraneous croup, as also spasmodic croup.

SECTION ON ABDOMINAL SURGERY AND DISEASES OF WOMEN.

UNDER CHARGE OF M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

Dr. Albert Goldspohn, of Chicago, says: "Prolapse of the ovary is responsible for many of the symptoms of which women complain. The following he gives as causes for this displacement: (1) increased weight of the organ; (2) elongation of the ovarian ligament, produced by subinvolution and by dragging upon the uterus in minor gynecological operations; (3) retro displacements of the uterus; (4) increased intra-abdominal pressure, as by coughing, sneezing, lifting, etc.

When the cause is subinvolution, treatment by tampons of wool or cotton, saturated with glycerine, will relieve soreness, and if properly applied, may cure. In a few of the cases due to other causes pessaries are of value, but they must be worn for a life time.

Surgical treatment is the most effective and best. The displacement of the uterus must be corrected. The round ligaments are the structures to be used in holding the organ forward. They may be shortened extra-peritoneally or intra-peritoneally. When necessary the ovary and fimbrated extremity of the tube should be secured by sutures in their proper relationship. Ventro suspension, ventro fixation and vaginal fixation are surgical monstrosities. Fixation is so serious a thing to a woman during the child-bearing period that it will soon be malpractice to perform it.—Medical News.

Dr. J. Price, in an article entitled "Simplicity in Surgical Details," read before the Association of Southern Railroad Surgeons, amongst other good and true things, said:

1. A high mortality in surgery is always in accord with the limit of experience, inaptitude, inaccuracy, inattention to details, non-observance of the simple precautions which cleanse away and ward out dust.

2. The low mortality of our surgery in the late years has

not been due to the extent claimed to antiseptic precautions, but to scientific cleanliness.

3. Experience has established the truth that soap and water are effective disinfectants; are good substitutes for corrosive sublimate. Absolute cleanliness is absolute immunity from all extraneous infection.

4. Four letters—dirt—can spell out, name and explain the germ theory. Lister's teaching, and that of his disciples, can be safely left to the high court of scientific inquiry for its condemnation. The spray was a sort of morning befog; it disappeared before the light of a better knowledge.

AN INTERESTING CASE OF VENTRAL FIXATION.

This patient had been operated on at the Pennsylvania Hospital in the fall of 1897. She had complained considerably prior to the operation, but her suffering was very much greater after the operation.

At just what time her pregnancy occurred it was impossible to determine, as the child was lost before she came into the hospital. I should judge from the size of the placenta about five months. She spent two or three weeks in St. Joseph's Hospital, where she was told that she was pregnant. After leaving St. Joseph's Hospital I was asked to see her. Her suffering was then so great that I thought an operation was demanded. The tumor extended on both right and left side as far as it could go, with a deep sulcus extending from the umbilicus to the diaphragm; the tumor was hard and felt like a myoma. Dr. Hughes made a four inch incision and a most careful inspection of the tumor. A broad band was found to pass from just above the public arch over and to the back of the tumor, dividing it into equal segments. This band was cut through with the scissors, and the tumor immediately assumed a spherical form; the two ends of the ventral fixation band, after it was cut and the womb assumed its natural position, were separated twelve inches. The fundus of the uterus was where the cervix ought to be, and the cervix was pulled out of the pelvis. Evidently at the time of the miscarriage, or the partial miscarriage the fundus had blocked the cervical outlet, so that the hemorrhage and placenta were retained.

The patient miscarried the next day of a large placenta and a great quantity of grumous clots.—Dr. Mordecai Price in N. C. Med. Jour.

SECTION ON OBSTETRICS.

UNDER CHARGE OF S. S. CROCKETT, M.D.,

PROFESSOR OF OBSTETRICS, MEDICAL DEPARTMENT, UNIVERSITY OF

NATURAL LABOR.

Dr. Robert R. Rentoul, of Liverpool, defines a natural labor as follows: "Labor at the ninth calendar month in a woman free from organic and functional disease of the heart, lungs, kidneys, brain and other internal organs, and from all fever diseases; when there is no impediment in the maternal passage of either soft or hard nature to the descent of the child; when there is only one child in the womb; when the vertex of the child alone presents in either the first or the second occipito-anterior position; when labor is completed within twelve hours from its commencement; when a living child is born; when neither instrumental nor manual operations have been required; when the afterbirth comes away without the use of manual operation within twenty minutes after the birth of the child; when there is no laceration of any portion of the parturient structures; when the mother does not die within thirty-one days after confinement, and when there is no puerperal fever."

TREATMENT OF ECTOPIC GESTATION.

Dr. H. W. Longyear, (Annals of Gynæcology and Pediatrics) summarizes as follows: (1) In all cases of intraperitoneal rupture, operate as soon as the diagnosis is made; do not wait for reaction to occur. Support such patients before and during the operation by application of heat to the extremities and back, transfusion of decinormal saline solution, rectal use of beef tea and saline solution, and strychnine, nitroglycerine, and digitalin by hypodermic injection. (2) If the hemorrhagic blood cannot be quickly removed, let it alone and use drainage. Do not flush the abdominal cavity to remove blood. The peritoneum will absorb the blood with much less danger than is caused by such manipulation. (3) Use silkworm gut en masse to close the abdominal wound, in case there has been a great loss of blood, as the buried animal suture is not readily absorbed when such

depletion has occurred. (4) Extraperitoneal hæmatocele is is usually self-limiting, and will almost always result in the death of the fœtus and the recovery of the patient. (5) In cases that go on to full term, operate at the end of pregnancy to save the child. Operate through the abdomen, drain through the vagina, and leave the placenta to come away by disintegration. (6) Electricity should be used only in cases so situated as to preclude the possibility of securing proper surgical treatment.

THE ACTION OF THE VAGINAL PLUG IN ACCIDENTAL HEMORRAAGE.

Dr. E. Hastings Tweedy (British Medical Journal, June 4) says that accidental hemorrhage is one of the few complications in midwifery, concerning which a marked disagreement as regards treatment exists. To accomplish this little operation in a satisfactory manner many pieces of sterilized cotton wool are required, each the size of a small closed fist, which should be placed in a weak antiseptic solution. The patient is then brought to the edge of the bed and put on her left side. When the vagina and vulva have been aseptic-ized and the bladder has been emptied, the pieces of cotton wool, from which the superfluous fluid has been squeezed, are taken, one by one, compressed into a small compass, and inserted without the aid of a speculum in such a manner that the entire cervix is surrounded by pledgets before the os is covered. Each piece is packed as tightly as possible, and when the vagina is filled to the utmost capacity down to the urethra, a diaper is placed between the thighs, and the application of a tight abdominal binder completes the operation. He arrived at the following conclusions: (1) The vaginal tampon, when properly applied, is the most suitable treatment we possess for the worst forms of accidental hemorrhage. (2) It may be relied upon as sufficient in the majority of cases not amenable to other treatment. (3) It controls the circulation in the uterine arteries, acting in much the same manner as does a tourniquet. (4) It dilates the cervix partly by exercising a peripheral force on that structure, and partly by exciting uterine contractions. (5) These latter are induced not merely as a consequence of cervical dilitation, but are chiefly attributable to the power the tampon possesses in bringing about an accumulation of carbonic gas in the uterus.—Medical Record.

SECTION ON MEDICAL CHEMISTRY.

UNDER CHARGE OF J. M. KING, B.S., M.D.,

PROFESSOR OF CHEMISTRY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; CHEMIST TO STATE OF TENNESSEE.

NORMAL URINE IN CHILDREN.

Carron de la Carriere and Monflet, in the Progres Medical, give the result of researches conducted on healthy children of eighteen months of age.

The healthy child urinates oftener than the adult. The specific gravity is higher; the acidity is stronger. By comparison, the child metabolizes more substance per kilo than the adult. The nitrogenous nutrition of the infantile cellule is on about the same scale as that of a man arrived at full development. The nitrogenous metabolism is more complete. With the adult only eighty-five per cent. of proteid. The child utilizes ninety per cent. of the total nitrogenous matter.

In mineral nutrition the variations are more marked, the infantile cellule being much more strongly mineralized. All the phenomena of nutrition, are in fact, incomparably more active than with the adult, the maximum being reached between five and ten years. The classical tables, dealing with the normal constitution of urine, are inapplicable to children.

DIGESTIVE FERMENTS NOT NEEDED.

The editor of Modern Medicine, in his classical style, comments on this subject as follows:

The use of digestive ferments which has in the last two decades assumed prodigious proportions, is one of the most stupendous delusions into which the medical profession has fallen by irrational reasoning and false deductions from clinical experience. Think of the immense quantities of pepsin transferred annually from the stomachs of dead pigs to the alimentary canal of human beings! Nobody knows how many tons of extract of pigs' stomachs are thus swallowed; but certain it is that the result would be practically as good if the same amount of some inert and more cleanly substance were swallowed instead, provided the same amount of psychic

influence were brought to bear. If some charlatan would put upon the market a brand of ostrich pepsin, it would quickly attain great celebrity, and would boast the endorsement of any number of persons who had realized good results from its use, even though it might be nothing more than powdered starch or sawdust.

Morro's experiments showed long ago that the element lacking in the dyspeptic stomach is not pepsin, but HCl, and his observations have never been shown to be faulty. The writer has carefully studied the results of more than ten thousand chemical examinations of stomach fluids, made after the methods of Hayem and Winter, and has to record that in less than one per cent. of these cases has there been found any deficiency of pepsin. Unless the peptic glands have been destroyed by cancer or some other degenerative process, pepsin is present in sufficient quantity to do all the work required of it.

This fact has been before the medical profession for years, and yet we go on prescribing pepsin in all its combinations for our patients from mere force of habit; or do we use it as a mind cure?

Anticipating that the pepsin fad is about worn out, some enterprising pharmacists have provided us with various kinds of diastase for the purpose of performing the other phase of stomach digestion—the conversion of starch into maltose and dextrin. Those who make use of this remedy seem to have quite overlooked the fact that nature has provided an efficient diastase factory in the body itself, first in the salivary glands, second, in the pancreas, and third, in the intestinal juice, and, perhaps, also in the bile. But as the first named only can be of service to stomach digestion, we will neglect the rest. We have made a careful test of the saliva for diastatic activity in more than three thousand cases, and have not yet found a single case in which this important digestive fluid is inert. The salivary glands are always ready to do their duty when given a chance. We venture to say there is no case which is benefited by the use of diastatic ferments which would not receive more benefit from the use of dry food, whereby the activity of the salivary glands would be called out in the highest degree.

In the treatment of more than ten thousand cases of indigestion of all classes, the writer and his colleagues have made no use of digestive ferments, and have found no occa-

sion for their use. We fully believe that this whole class of remedies, so-called, might be thrown to the dogs without damage to humanity, but it might not be well for the dogs."

COLLEGE CLINICS.

GYNECOLOGY—PROF. M'GANNON.

Reported by Dr. A. Hudson.

LACERATION OF THE PELVIC FLOOR; ITS REPAIR.—Gentlemen, while the patient is being prepared for the operation, I will speak briefly on lacerations of the pelvic floor. A few years ago it was the general belief amongst medical men that the wedge-shaped mass of areolar and fatty tissue lying between the anus and the outlet of the vagina, "the perineal body," was the keystone to the arch, by which the pelvic contents were supported and retained in their normal situations. We know now that teaching was false; it still sticks in the minds of many good practitioners at the present time; though somewhat modified. "The Pelvic Floor" is that strong body of muscles and fascia by which the pelvic outlet is guarded. Nature has done her work well in their formation; she has caused these tissues to overleap each other until what would otherwise be a weak point has become a strong one. The pelvic floor is as much a part of the boundary of the abdominal cavity as are the anterior abdominal muscles. A laceration of this floor causes a hernia. Just the same as results when a separation between the rectal muscles of the anterior abdominal wall. The weak points in the walls surrounding the abdominal cavity are: where the vagina and rectum find an exit; the inguinal canals; the femoral rings and the umbilical depression. In each of these situations the wall is strengthened, so that under ordinary circumstances the abdominal contents are held in position.

Some of the causes of lacerations of the pelvic floor are: traumatism, as from external forces, but the chief one and the one I will dilate upon is injury as a result of parturition—a too large head, the oncoming malpositions of the child, malformation of the mother's pelvis, too rigid outlet, too violent pains if uncontrolled, the faulty use of of forceps or the delayed use of instruments may cause laceration of the soft parts.

The symptoms may be divided into immediate and remote. Those under the first head are pain, hemorrhage, laceration of the tissues and later possibly septicemia. The remote changes observed are subinvolution, not only of the uterus and its appendages, but also all structures that underwent evolution during the period of gestation, cystocele, rectocele and various displacements of the uterus. If the spincter ani is torn there will be escape of gas and incontinence of feces.

For convenience of description we will make certain clinical divisions of laceration of the pelvic floor. When the sphincter muscle of the bowel is torn we speak of the injury as complete. When that muscle is intact we speak of it as partial.

In some cases the deep structures of the pelvic floor are torn, yet the skin and mucous membrane remain uninjured; and these are known as submucous or hidden tears. It is our duty to examine every case immediately after delivery and if injury is found to at once repair it, for at this time the parts are benumbed and have lost their contractile power. If the laceration is of the hidden variety we must wait until involution is complete and then repair the floor. The flap-splitting Tait's operation is practiced by some, but it is of doubtful value in the generality of cases. It may be employed in central lacerations. The operation to be performed is Emmett's or some modification of it and that is the one we will use on this case. Everything now being ready we will proceed with the operation.

The position in which the patient is to be placed is the dorsal with the legs well fixed upon the body. The parts are thus well brought before us, and you see here the posterior segment of the pelvic wall falls away from the anterior one, leaving a gaping vagina with both walls somewhat prolapsed or rolled out. On either side upon its posterior wall you will observe the carunculae myrtiformes. They are the ends of the torn hymen and the space, an inch and a half, represents the amount of separation that has taken place as a result of the retraction of the unopposed transversus perinei muscles. The carunculae myrtiformes then must be our lateral guide to our denudation. A point upon the highest part of the rolled out posterior wall that can be brought in contact with the carunculae without tractions and which when applied to the meatus urinarius brings the anterior and posterior vaginal walls in apposition is the central guide to the surface to be bored. When the central point is applied to our lateral guides, the

carunculae myrtiformes, a depression or sulcus is formed on either side well within the vagina, which must be denuded. Thus I have now done the denudation. I will complete by removing all of the tissues between the guiding points first taken. Observe that I cut deep enough to lay bare the levator ani and the ends of the transversus perinæi muscles on either side. With cat gut I will now close the parts denuded within the vagina. The outlet, that is, the muscles and fasciae forming the pelvic floor, I will approximate or bring together as they once were by passing deeply under them silkworm gut sutures, taking care not to enter the rectum. Now that I have the sutures all inserted I shall tie them, but not too tightly, lest they constrict the tissues. The operation is now completed. Observe that there is no shelf of skin brought together, but that the entrance is somewhat funnel shaped, as nature intended it should be. The ends of the hymen lie together and the posterior vaginal wall lies against the anterior.

The after treatment will consist in keeping the patient as quiet as possible and giving her a light diet. The stitches will be removed in a week and the patient allowed out of bed in fourteen days.

MEDICINE—PROF. WOOD.

MEMBRANOUS CROUP.—Not many years ago we were taught that membranous croup was a distinct disease per se, having no connection with true diphtheria, though no satisfactory explanation was ever given as to its etiology, nor was it shown that the pathological conditions present in cases of this disease could be differentiated from those found in cases of extension of the diphtheretic membrane from the fauces into the læquex. The discovery of the true Klebs-Lœffler bacillus in practically all cases of true membranous croup has demonstrated clearly that these cases are diphtheria of the larynx, due to the action of the same micro-organism and largely amenable to the same treatment, viz., antitoxin. Careful clinical observations cannot fail to lead one to the same conclusion. Those who claim that there are two distinct diseases argue that membranous croup is not so infectious as diphtheria and that the constitutional symptoms and profound depression so prominent in the latter are present in the former only to a moderate degree. It must not be forgotten that while absorption from the faucial and pharyngeal

mucous membranes is rapid and free; it is on the other hand very limited in the unisora of the larynx. Again the fact that many of these cases die before there is any separation of the membrane and before the bacilli can be set free, will explain why there is less infection than in faucial and pharyngeal diphtheria. Still such cases of infection undoubtedly do occur. I formerly looked upon membranous croup as a distinct disease and one free from infection, but cases Nos. I. and II. of the following led me to accept the view then brought forward, viz., that it is really a diphtheria of the larynx.

CASE I. In the autumn of 1887, B. W., aged 2 years, was sent to her aunt's, five miles out in the country, in the hope that she would not become infected with diphtheria from her little brother, who was suffering from that disease. The greatest precautions were taken to prevent infection being carried in clothing, etc., by having the child well bathed and dressed in fresh, new clothing on leaving its home. Two days later the child's aunt noticed that it was a little hoarse and seemed to have a cold which through the night became croupy. I saw the child early the next morning and found it suffering from dyspnœa with croup and husky voice, but with no signs of membrane in its throat. The child progressively grew worse, and died with all the symptoms of membranous croup thirty-two hours after the symptoms were first observed.

This little patient was nursed for several hours during the attack by its cousin, a young girl 14 years of age. Three days after the child's death this girl developed a very severe diphtheria of the fauces and nose, with subsequent paralysis of the palate and legs, and suddenly died two weeks later from paralysis of the heart.

I have always considered that the little child's membranous croup was produced from diphtheric infection from her brother and that her cousin contracted her diphtheria from the membranous croup infection.

CASE II. In March, 1890, Ray C., aged 2½ years, was sent to his grandmother's to escape diphtheria, his sister, aged 5 years, having that disease. Three weeks after the sister's recovery he was brought home in perfect health. One week later he was taken ill with huskiness and croupy cough and died in three days with all the classical symptoms of membranous croup. I saw this case in consultation and both the attending physician and myself looked upon it as a case of infection from the sister's diphtheria.

CASE III. Dr. W. G. Ewing of this city informs me that in September last during the present epidemic of diphtheria he attended a case of membranous croup in a child and that on the fifth day of the disease a little brother in the same house sickened and died with a true diphtheria of the fauces. Antitoxin was used in both cases and both recovered.

CASE IV. Dr. Larkin Smith, medical health officer of this city, reports an instance in the present epidemic of a child dying of pharyngeal diphtheria in a family, and less than two weeks later another child in the same home developed membranous croup.

It is unnecessary to multiply these cases. All point in the same direction, viz., that membranous croup is not only infectious itself, but that it is true diphtheria, and that the infection from it may give rise to true faucial diphtheria in another child, or itself arise from a case of diphtheria in the throat or nose.

PERSONAL.

It is with pleasure we announce the marriage of Dr. Bailey Bell, of the class of 1897, to Miss Mabel Cook, of Vinita, Indian Territory. At the present time the happy couple are in Tennessee on their wedding trip. We wish them every happiness for the future.

Dr. Bell, after his graduation, went to Vinita to practice his profession. He was an excellent student, and took high honors at the time of his graduation. His Alma Mater expected good things of him, and she has not been disappointed.

The University has another brilliant graduate in Vinita in the person of Dr. B. F. Fortner, who graduated in 1872. Dr. Fortner has since his graduation taken several post graduate courses. He enjoys one of the largest practices in the Territory. He is a surgeon of more than ordinary skill. We are glad to know of his success.

BOOK NOTICES.

A MANUAL OF PRACTICE OF MEDICINE. By A. A. Stevens, A.M., M.D., Instructor of Physical Diagnosis in the University of Pennsylvania, and Demonstrator of Pathology in the Women's Medical College of Philadelphia. Post 8 vo. 520 pages. Fifth edition.

This little work includes the following sections: General diseases, diseases of the digestive organs, diseases of the respiratory system, diseases of the circulatory system, diseases of the nervous system, diseases of the blood, diseases of the kidneys, and diseases of the skin. Each section is prefaced by a chapter on general symptomatology and physical diagnosis, which is a valuable feature of the work.

As the author states, this book is specially intended for students preparing for examinations; it is short and concise; is, in fact, a book of notes, but comprehensive and well adapted for its purpose, viz., assisting students in reviewing the subject of "Practice of Medicine." Like all such works, however, it should not be used as the sole text book read by the student on this important subject, inasmuch as the explanations of the conditions, clinical features and treatment of the disease, which alone can lead to a clear understanding of the subject, are of necessity omitted. It occurs to the writer that a wider leaf which would permit of marginal notes by the student, would be an improvement in the book.

THE TECHNIQUE OF OPERATIVE SURGERY. By J. L. Johnson, M.D., Louisville, Ky.

This little pocket manuel is just what is claimed for it—a ready reference in emergencies and out of emergencies for the little details of surgical technique that may escape the memory of the busy surgeon or his assistants, or that may not be familiar to the occasional operator. The subjects touched upon are so dealt with that the essential features are placed before the reader in such fashion as to make it impossible to not understand them. The student of medicine will find in it many details not described by the professor of surgery, a knowledge of which, however, will better enable him to understand the success that attends the work of some men and the failures that troop along after that of others. We recommend it as a work worthy of the consideration of students and practitioners, and one that is always in place when being studied by nurses who eave charge of operating rooms.

SOCIETY MEETINGS.

MIDDLE TENNESSEE MEDICAL ASSOCIATION.

This progressive society held its ninth regular meeting in Nashville, November 17 and 18. The attendance was large and the discussions as interesting as they usually are in this progressive society. The programme as published was closely adhered to. Drs. J. C. Smith, of Tullahoma; James S. White, of Franklin; J. B. Cowan, of Lebanon; T. J. Coble, of Shelbyville; J. H. Stanley, of Beardstown; D. W. Flowers, of Little Lot; Edwin G. Wood, J. M. Zarecor and W. B. Anderson, of Nashville, were admitted to membership.

The local profession exhibited the well known hospitalities of Nashville to a degree which delighted the visitors. Their efforts culminated in an elegant banquet at the Tulane Hotel on Thursday evening. All the delicacies of the season were thoroughly enjoyed, and happy responses to the toasts made the occasion no less a "feast of reason and a flow of soul."

The morning session of Thursday was called to order by the chairman of the committee on arrangements, Dr. M. C. McGannon, and the divine blessing was invoked by the Rev. Dr. Hawthorne. Mr. J. H. Zarecor delivered an address of welcome on behalf of the city of Nashville, which was responded to by Dr. J. B. Cowan, of Tullahoma, for the Association. Dr. C. C. Abernathy, of Pulaski, who was expected to make the reply, was detained at home by the serious illness of an intimate friend.

President E. W. Ridings, of Dickson, then assumed the chair and the regular order of business was begun. Dr. M. C. McGannon detailed the arrangements made by the committee for the comfort and pleasure of the visiting members. Dr. W. K. Sheddan, chairman of the committee of credentials and new members, presented several applications for membership, which were acted upon. Dr. J. B. Cowan said that his committee had had no business to consider.

The first paper on the programme was read by Dr. L. L. Sheddan, of Williamsport, on "The Treatment of Acute Croupous Pneumonia." It was discussed by Drs. Edwards (Geo. P.), Cowan, Swaney, and Sheddan (W. K.).

The next paper, "Difficult Dentition of Infants, with a Plea for the Use of the Lancet," by Dr. J. S. Edwards, of

Erin, was discussed by Drs. Hardison, Sheddan (W. K.), Wood (E. G.), White and Flowers.

Dr. F. B. Reagor's paper on "Chronic Pleurisy" was discussed by Dr. Witherspoon.

Dr. Jas. S. White, of Franklin, presented the subject of "Antitoxin in Membranous Croup," which was discussed by Drs. Atchison (W. A.), Witherspoon, Murfree, Cowan, Sheddan, (W. K.), Crockett and Coston.

The first paper of the afternoon session was that of Dr. W. J. Jolly, of McMinnville, on "Reflex Functional Nervous Diseases of Women." It was discussed by Drs. Buist, Sheddan (W. K.), and Cowan.

Dr. L. E. Ragsdale, of Columbia, followed with "Ataxias; their Differential Diagnosis."

"Electro Diagnosis in Nervous Diseases," by Dr. Geo. P. Edwards, Nashville, was discussed by Dr. Price.

Dr. Geo. C. Savage addressed the Association on "The Dangers of Cocaine in Surgical Practice." Drs. Zarecor, Stonestreet, Hardison, Edwards (G. P.), Murfree, Wood (T. H.), White and Price took part in the discussion.

At the night session Dr. S. S. Crockett read a paper on "Multiple Pregnancy," which was discussed by Drs. Hardison, Sheddan (W. K.), Cowan, Coston, Leroy, Atchison (W. A.).

Following this, the presidential address was delivered by Dr. E. W. Ridings. He spoke of the noted men Middle Tennessee had given to the medical profession and then of the physician's duty of exercising his influence for good on the morals and ethics of his community. The closest attention of the Association was given to this address.

Following the president's address, about half past nine the Association adjourned, to reassemble shortly afterward in the magnificent dining room of the Tulane, where tables were set in the form of a long H for more than a hundred guests.

During the banquet Dr. S. S. Crockett acted as master of ceremonies, and toasts were responded to as follows:

"The Middle Tennessee Medical Association" . . . . . Dr. E. W. Ridings.

"The Old-time Doctor" . . . . . Dr. S. T. Hardison

"A Modern Gastronomic Feat" . . . . Dr. C. R. Atchison

(Uncle Sam swallowing the Philippines, Cuba and Porto Rico at one mouthful.)

"A Physiological Phenomenon" . . . . . Dr. Geo. H. Price

"Two souls with but a single thought,
Two hearts that beat as one."

"The Therapeutic Virtues of Atmospheric Air" . . . . . Dr. J. B. Cowan.

On Friday morning after a prayer by the Rev. Mr. Manning, the business of the session began with the paper of Dr. K. S. Howlett, Bigbyville, on "Typho-Malarial Fever." This paper and the one which followed, "The Treatment of Typhoid Fever," Dr. Garrett White, Chapel Hill, were discussed jointly by Drs. Wood (E. G.), Cowan (Tullahoma), McGannon, Zarecor, Hardison, Reagor, Sheddan (W. K.), Moody, Sheddan (L. L.).

Dr. M. C. McGannon read a paper on "Phantom Tumor" which was discussed by Drs. Sheddan (W. K.), Ridings, Sheddan (L. L.), Hardison, Cowan (Lebanon).

Beginning the afternoon session, Dr. H. R. Coston's paper, "Veratrum Viride in Puerperal Eclampsia," was discussed by Drs. Hardison, Moody, Cowan (Tullahoma), and Robertson.

Dr. A. B. Cooke's paper on "Syphilitic Stricture of the Rectum, a case with operation," was highly commended by a number of members.

Dr. Reginald Stonestreet, Paragon Mills, read a paper on "Infant Feeding," discussed by Drs. Moody, Reagor, Howlett, Cowan.

"The Mental Aspect of Neurasthenia," Dr. B. W. Stone, was discussed by Drs. Edwards (G. P.), and Crockett.

The report of the treasurer was read and adopted.

The Association then took up the question of the next place of meeting. Dr. James S. White extended an invitation to meet in Franklin, Tenn. Dr. J. W. Grisard, by letter, invited the Association to hold its next meeting in Winchester, which was seconded by Dr. F. B. Reagor, of Flat Creek, in person. A vote being taken, Franklin was selected.

The election of officers for the ensuing term was now held, the following officers being unanimously elected:

President, Dr. S. T. Hardison, Lewisburg.
Vice-president, Dr. M. C. McGannon, Nashville.
Secretary and Treasurer, Dr. Paul Clements, Nashville.

The next meeting will be held in Franklin, Tenn., May 18 and 19, 1899.

TRI-STATE MEDICAL SOCIETY—TENTH ANNUAL MEETING.

President J. A. Goggans in the chair.

A. A. Greene, of Anniston, Ala., read a paper on "Keratitis," reviewing the treatment, consstitutional and local, of interstitial and ulcerative keratitis, mentioning the use of atropine, yellow oxid of mercury ointment, iodoform ointment, heat with iron, cod liver oil and tonics, condemning lead and cocaine.

Frank Trester Smith recommended holocain where an anesthetic was indicated in inflamed tissues. He condemned the use of lead and alum. In superficial ulcerations he recommended the use of weak solutions of eserine sulphate.

S. L. Ledbetter read a paper on "Syphilis of the Nose," relating a case of nasal growth in which the diagnosis was obscure, but which yielded to large doses of potash and mercury.

Frank Trester Smith said that the course pursued was justified by the result. He related a case of paralysis which yielded to nothing until large doses (150 grains) of iodide were given t. i. d., when the patient improved rapidly.

S. L. Woodson said that in negroes with nasal and throat affections not yielding to ordinary treatment, he used antisyphilitics. He had used mercury, hypodermically, with good results.

W. S. Edwards had treated Dr. Ledbetter's case for syphilis some time before she was seen by Dr. Ledbetter.

Dr. Ledbetter said that he had never seen or heard of a case like this with a cauliflower growth in the nose.

Frank Trester Smith, Chattanooga, Tenn., read a paper on "Purulent Ophthalmia; a New Method of Treatment," advocating the use of the new silver salts, of which argonin is a type, instead of nitrate of silver, but not to the exclusion of other remedies.

W. B. Woodson had used these preparations which he endorsed. Had used protargol 50 gr. to oz., but 20 or 25 grs. is just as effective. This was not painful.

D. S. Middleton endorsed the position of the author. Had treated three cases with 5 per cent. solution of argonin.

Dr. Woodson stated that protargol had the advantage that it was not precipitated by sodium, chloride, ammonia or anything else.

Seale Harris said that in using these preparations we

should not lose sight of the value of cold applications, which were of value.

S. L. Ledbetter insisted on the importance of thorough cleansing. After that can use any antiseptic.

Dr. Smith, in closing, differed with the last speaker, in that he thought that there was a choice of antiseptics. Bichloride of mercury was to be avoided, as it sometimes produced a faint opacity of the cornea. These silver preparations were more than antiseptics; they promoted healing.

A. J. Nolen, New Site, Ala., presented a case of a patient having convulsions and obscure nervous phenomena, for diagnosis. A committee examined the case, and were of the opinion that it was one of epilepsy.

H. L. Appleton, Cedar Bluff, Ala., read a paper on "Diphtheria," advocating the use of anti-toxine, and relating his experience in an epidemic of eighteen months. Had used serum in 103 cases, with five deaths; used (1) full dose antitoxine; (2) oil with soda for secretions; (3) sprays throat with cocaine gr. xv., gum camphor dr. 1, quinine hydrobromat dr. ij., acid hydrochloric m. xx., antipyrine gr. xv., listerin oz. ij., alcohol q. s. ad. oz. iv.; (4) strychnine every six hours.

W. D. Travis, Covington, Ga., read a paper on "Diphtheria," relating his experience with antitoxine in hospital practice in New York, where it gave the best results. If proper treatment is given the membrane will not extend to larynx. Antitoxine should be used early, not waiting for microscopical diagnosis. Injections should be deep into muscles on the thigh, causing less pain and no loss of serum. These papers were discussed together.

Mack Rogers endorsed the position taken by the authors. The pathology was especially interesting. The poison is not the bacilli, but the toxines produced by the germs, hence the need of early use of antitoxine. The initial dose should not be small, at least 1500 to 2000 units; not necessary to use it where there is no tendency to spread to larynx.

E. T. Camp said that we sometimes had the bacilli where there was no diphtheria, as in healthy throats. An important point in diagnosis is extension of membrane which does not take place in follicular tonsillitis. Local treatment can abort if commenced early; had two deaths in thirty cases by treating as follows: (1) locally, to membrane, bichloride mercury gr. xx. to oz. j. glycerine; (2) large dose calomel; (3) borolyptol or similar preparation, locally; (4) whisky in heroic doses.

This gives as good results as antitoxine, which should be used, if systemic infection.

Geo. S. Brown said that only 30 to 40 per cent. of sore throats show the Klebs-Lefflœr bacillus in epidemics; cannot be distinguished from beginning diphtheria. We may find streptococci, pneumococci or staphylococci. If antitoxine was used only where diagnois is made with microscope results would be better. To treat diphtheria without antitoxine is to take an unwarranted risk.

D. L. Wilkinson related his experience at the Girls' Industrial School, insisting on the importance of the microscope in diagnosis.

Seale Harris insisted on the importance of prophylaxis. The physician should wear an ulster when in the sick room, but the disease is not usually communicated by the doctor.

J. W. Hooper said that not all diseases of the throat with a membrane were diphtheria. Other infections may abrade the surface, allowing the Klebs-Lœffler bacillus to obtain lodgment; danger is from systemic infection. The Klebs-Lœffler bacillus never produces metastatic affections, but this is from other germs. Treatment should vary with the infection which cannot be made out without the microscope. The clinical symptoms should be taken into consideration. The pseud-Klebs-Lœffler bacillus further complicates matters.

Mack Rogers would use serum always in the young, if tendency to spread, but not in other cases.

Dr. Adpleton did not use serum if membrane has morticed appearance, with distinct margins; did not object to microscope where patient could pay for it. In all suspected cases would use antitoxine, as if not diphtheritic it would immunize the patient.

Dr. Travis had seen a few cases of diphtheria in negroes. Mild cases may take on rapid extension. Pseuio-bacillus may be distinguished by appearance and by growth in tubes. Cases which yield readily to treatment are probably not diphtheretic.

W. D. Gaines, LaFayette, Ala., reported a case of aneurism of the brachial artery, with operation and recovery.

Eugene Argo, Goodwater, Ala., related a case of removal of seven hundred and five pebbles from the bowel, and exhibited the stones.

J. W. Hooper related a case where by massage he had removed a hundred worms, and in another case 230 pieces of flint rock.

J. B. Cowan related cases where he had removed concretions. In one case he had operated and removed 105 gall stones.

A. J. Nolen told of a boy who had swallowed thirty-two No. 20 cartridges.

Henry J. Steeves reported a case in which a pound of snuff brushes were found, post mortem, in a woman's stomach.

R. E. Cowan, New York, read a paper on "Some of the Dangers of Modern Surgery," alluding to the danger from anæsthetics, from antiseptics, from operations by incompetent men who are tempted by the apparent ease of operating.

The recent graduate who adopts a specialty is not apt to be conservative; will often want to diagnose complications. The specialist should be developed from the general practitioner, except, perhaps, the eye and ear specialist.

J. A. Goggans said that the paper showed thought. The people demand division of labor.

A. A. Greene said that a man should spend several years in practice before adopting a specialty.

J. B. Cowan insisted on necessity of competency in making diagnoses, whether specialist or not.

J. W. Hooper said specialism and division of labor was an evidence of advancement. The sooner we recognize this the better. Each should recognize the ability of the other.

D. S. Middleton, Rising Fawn, Ga., read a paper on "Peritonitis; Report of a Case," with an undetermined cause. Laparotomy showed uterus, ovaries and appendix normal. Death occurred sixty hours later, probably from heart clot.

W. E. B. Davis said that in his opinion, contrary to the teaching of McBurney and others, that general suppurative peritonitis was not amenable to surgical treatment. Cases of large abscess may simulate general peritonitis if they break into general peritoneal cavity. He had had a large number of these cases and all had died. His experiments on dogs also bore out this statement.

W. H. Moon related a case where he had used large doses of Epson salts every hour, with no opium. He believed the salts saved the patient's life.

J. B. Bowan called attention to the use of Pisidia (Fl. Ext) teaspoonful every two hours, as near a specific as anything.

John D. S. Davis said that if there was general suppurative peritonitis the patient would die. Operation should be performed, as there might be some mistake in the diagnosis. Life might be prolonged and the patient made comfortable

three or four days, long enough to make will or dispose of some business.

D. S. Middleton had seen salts used in several cases with no results.

Mississippi Valley Medical Association.

Abstract of the proceedings of the twenty-fourth annual meeting, held at Nashville, Tenn., October 11, 12, 13 and 14, 1898.

FIRST DAY—MORNING SESSION.

The Association met in the hall of the House of Representatives at the state capitol, and was called to order by the chairman of the committee of arrangements, Dr. Duncan Eve.

Divine blessing was invoked by Rev. James I. Vance, D.D.

Addresses of welcome were delivered by Hon. J. M. Head, on behalf of the city and state, and Dr. C. S. Briggs on behalf of the local profession.

After the reading of the reports of the secretary and treasurer, which were adopted, the president's address was delivered by Dr. John Young Brown, of St. Louis, Mo. He selected for his subject "The Mississippi Valley Association," dealing with its history and saying that it was organized twenty-four years ago. The rapid growth of the Association is due to the loyalty of its members and to the fact that from its inception it has been a distinctively working body. Suggestions were offered for its improvement. The president recommended that the annual dues be raised from $3 to $5, inasmuch as the Association contemplates the publication of an annual volume of transactions.

At the conclusion of the president's address the scientific programme was taken up. The first paper was read by Dr. Charles T. McClintock, of Detroit, Mich., entitled

IMMUNITY.

Of late years a large part of the laboratory work in medicine has had to do with immunity. Many facts have been discovered; in a few instances these have been of immediate practical value in the treatment or prevention of diseases. But for the most part, these facts are uncorrelated, often contradictory, their meaning not clear. Hypotheses have been advanced, but as yet we have no theory that will even ap-

proximately explain the facts of immunity. The future of work in this line is full of promise. For the infectious diseases, at least, immunity and cure are one and the same. A diphtheria patient will be cured only when its tissues are immunized against the attack of the diphtheria poison. There are several kinds and various degrees of immunity. We have a natural and an artificial or acquired immunity; apparently these are entirely different in kind, dependent on different functions of the body, effected by different substances. There is racial immunity. Again, we have an immunity correlated with age. Variations in susceptibility are noted in different varieties of the same species and even in different families. Again, there is an individual immunity. Still again, one part of the body, even one portion of the same tissue, may be immune, while the rest is very susceptible. These facts are not to be explained by general resistance, good health, etc. The most vigorous man may acquire smallpox or influenza. The healthiest cow is likely to take pleuropneumonia.

To what extent an acquired immunity can be inherited is both an interesting and important question. This sort of immunity is usually lost, at least so far as our tests will show, before the animal reaches the adult stage. This inherited immunity is not the same as the immunity of the suckling. This is due to the fact that the immunizing bodies pass into the milk. The child receives from its mother not only food, but disease-resisting power.

We have active and passive forms of acquired immunity. The horse producing anti-toxin is actively immune. His tissues are producing antitoxin. The child receiving a dose of antitoxin is passively immune. It has borrowed the strength of the horse.

There is an immunity to poison. The wolf thrives on putrid flesh. Some animals are immune to snake poison. The insusceptibility of the morphine user may be something more than mere tolerance. The drug may be in part destroyed, and this anti-power may have to do with the craving for the drug. There is no antitoxin, but, in short an immunizing body.

Dr. George W. Johnson, of Dunning, Illinois, has had some experience with nucleinic acid in the treatment of pulmonary tuberculosis in cases of mixed infection. He has noticed a diminution in the number of pyogenic bacteria, and asks whether the phagocyte attacks the tubercle bacillus the same as it does pyogenic bacteria.

Dr. M'Clintock replied that he knows of no reliable investigations that have been made with reference to that point.

Dr. Ernest B. Sangree, of Nashville, said it is believed by many investigators that the phagocytes eat live tubercle bacilli, and that cases in which tubercle bacilli are included in the phagocytes have a better chance to get well than those which do not contain them.

Dr. Dudley S. Reynolds, of Louisville, is afraid that experimental observers have failed to note the necessary equilibrium between the circulating blood current and the lymph stream. Dr. Reynolds elaborated the theory of phagocytosis and showed how phagocytosis can never be successful if obstructions exist in the lymph channels.

HYGIENE VERSUS DRUGS IN THE TREATMENT OF PULMONARY TUBERCULOSIS.

A paper on this subject was read by Dr. C. L. Miner, of Asheville, N. C. Under hygienic and dietetic treatment the author embraces all such non-medicinal measures as are directed towards an increase in the vitality of the organism and of its resistance to disease, and remarks that climate-therapy is but a branch of hygienic treatment, although he does not embrace it in his remarks, which are confined to the proper application to individual cases of exercise, gymnastics, massage, hydrotherapy, rest, sleep, diet, amusements, clothing, and quarters. A partial and unsatisfactory use of such measures is more or less general, but unless directions be definite and specific, they will fail of their purpose.

The very common abuse of exercise was deplored, and the invariable rule stated, "exercise short of the point of fatigue," and the other of no exercise with a temperature over 100.4 following which no mistake can be made. The thing to be attacked is not so much the lesion in the lung directly as the lowered vitality of the body, the diminished capacity of the lungs, and the deficiency of appetite, and drugs directed to a conquering of the bacillus in situ are not to be compared with measures which enable the organism itself to acquire the strength to overcome disease. These things can be brought about best by an improvement in nutrition, which must after all come from the stomach, and an increase of the amount of oxygen taken into the lung.

(Continued next month.)

THE

MEDICAL AND SURGICAL BULLETIN,

OFFICIAL ORGAN,

Alumni Association, Medical Dept., University of Nashville.

NASHVILLE, TENN., JANUARY, 1899.

CYSTIC KIDNEY.

BY M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

Want of care in examination of the kidney and of its secretions by some otherwise painstaking physicians is sufficient warrant for my placing before the profession a report of a case of cystic kidney. My case-book contains the following notes:

The patient is a white woman thirty years of age, the mother of two children, the youngest being two and one half years of age. The pregnancy, delivery and lying-in in each case was normal.

Menstruation is and has been at all times regular, occurring every twenty-eight days. The flow is profuse, and continues six or seven days, is at times clotted and is accompanied with cramp-like pains during the first and frequently during the second day.

Leucorrhoea, neither offensive nor irritating, is at times profuse. Family history is good. Her personal history relates that she has never been very strong, though she has had no disease except a fever when she was thirteen years of age until her present trouble began.

She complains of attacks of pain in the left side that come on every four or five days suddenly and with such severity as

to cause her to cry out. They are relieved but slightly by pressure or heat.

Large doses of morphine are necessary to allay the pain. It lasts from one hour to twenty-four, and disappears somewhat rapidly. She first noticed these attacks about four years ago. They were then infrequent; but during the last year they have been becoming more and more frequent, until now attacks are every four or five days.

The pain begins in the left side just below the ribs, radiates through the groin, and is accompanied by a desire to empty the bladder often. Micturition is painful, the pain being of a burning character. The vesical symptoms largely disappear when the attack of pain in the side ceases.

The history is gotten only by careful questioning, since the patient, when left to herself, grips her side above the crest of the ilium and says she is in great pain; she also presses upon the inguinal region, saying the pain is there also.

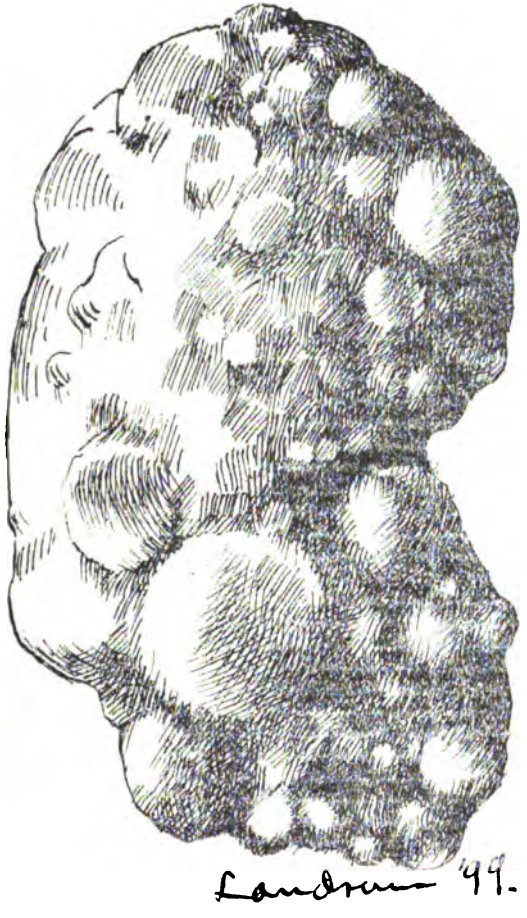
The intensity of the suffering in these regions overshadows the other symptoms, so that the patient cannot, unless questioned closely and systematically, detail the case in the order in which I have set it down.

During the four years of illness the patient had four physicians, all capable men, yet not one of them had directed his attention towards the kidney. According to her statements, one had treated her for indigestion and ovarian troubles, the second thought she had uterine and ovarian difficulties, a third diagnosed endometritis and called a surgeon in consultation, with the result that a curettment was done. This failed to give relief. The physician again called the surgeon to consider the advisability of removing the ovaries, but this procedure the surgeon advised against. All had given her morphine, so that the habit was well established. To this habit the surgeon attributed the seeming great suffering.

In December, 1897, I was called to see her in one of her attacks. I found her in bed, holding her side, and complaining of being in agony. She had taken half a grain of morphine, by mouth, an hour before. I administered another half grain, under the skin, which gave relief.

Examination demonstrated the uterus was in its normal situation, ovaries and fallopian tubes seemingly normal, cervix uteri soft and slightly patulous and its glands somewhat diseased; abdominal viscera seemingly normal, except the left kidney, which was enlarged.

I secured a specimen of urine and had it examined. It was found to contain albumen and granular casts. The patient was removed to my infirmary and kept under observation. As soon as the attack subsided the albumen and casts disappeared from the urine.



The diagnosis was cystic disease of the kidney with obstruction of the ureter, probably by stone.

We next proceeded to ascertain, by examination of the urine from each kidney, the condition of the right one. The examination was made during an attack when the urine was albumenous. Having determined that the right kidney was probably normal, operation was decided upon. It was my

intention to save the kidney if possible, but when I reached it I found it in such a miserable condition that I determined to remove it.

The operation was done through an incision extending from the crest of the ilium to the last rib, just outside the lumbar muscles. The fat and fascia surrounding the kidney were so matted together that it was with much difficulty the organ was dissected out. The stump was tied in two sections—the one having the vessels, the other the ureter.

After disinfecting the open mouth of the ureter with pure carbolic acid, the stump was dropped. A large drainage tube was carried into the depth of the wound and was brought out of the lower end of the opening. The incision was closed with silk-worm gut carried through the whole structure of the wall on either side of the wound. The drainage tube was removed at the end of forty-eight hours and the stitches in ten days. The patient returned to her home twenty-one days after operation. She has had no pain since then, has gotten rid of the morphine habit, and is able to conduct a boarding house, in which she is obliged to do much of the work herself.

The specimen which I present (see drawing) is one that speaks for itself. This case teaches that we should examine every patient thoroughly; that a woman has other organs besides the ovaries, tubes and uterus, and that good men may make mistakes in very simple cases.

It has been my misfortune to see not a few cases of diseases of the kidneys in which the diagnosis of ovarian, or uterine, or stomach, or eye derangement had been previously made. This specimen is presented in solemn protest against these errors.

NOTES ON TETANUS.*

BY Q. C. SMITH, M.D., AUSTIN, TEX.,

Life Foundation Fellow Society Science, Letters and Art, London; Life Fellow American Ass'n Adv. Science; Life Member Cal. Acad. Science; Member Amer. Med. Ass'n; Tex. Acad. Science, Etc., Etc.

Mr. President: To be as brief and specific as possible we would classify tetanus into four forms, though the manifestations of each form are more or less similar:

1. Acute traumatic tetanus, occurring within twenty-four hours, or less time, after the occurrence of the causative traumatism.

2. Septic tetanus: As in puerperal cases or from dissecting or other poisoned wounds.

3. Idiopathic tetanus; as a result of constitutional conditions, as exposure to extreme cold or heat, or irritation of the alimentary canal, or in persons enduring loud explosions, as canonading or blasting.

4. Tetanus neonatorum, which might be classed as a form of septic tetanus.

In all cases the exciting cause and conditions, as near as can be ascertained, should be promptly removed or counteracted, or as nearly so as possible.

If the causative traumatism be a punctured or other closed wound, it should be, under chloroform, immediately made an open wound, by free incision, at least as deep as the original wound, and the parts carefully examined and all foreign matter removed and the wound thoroughly cleansed with clean very warm water; then closely covered with a thick pledget of absorbent cotton and kept saturated with a lotion of equal parts paregoric, laudanum and fresh-made simple syrup; the cotton closely wrapped with oil silk, and over all thick, soft, warm, moist linen cloths wrapped and kept warm and moist, the patient kept quietly in horizontal posture.

The opiated dressing should be renewed every one or two hours, and the warm, moist wrappings constantly applied until all tetanic symptoms have ceased.

*Read before the Travis County Medical Society.

In all cases the bowels should be promptly and freely moved by the least perturbating means. The patient should be kept as quiet and comfortable as possible and well nourished, as the ultimate tendency of the disease is toward recovery if the patient can successfully withstand the depressing and disturbing effects of the cause of the attack. The internal remedies should be more or less varied to suit the special indications of each case.

We are quite familiar with much that is published in reference to the bacillary origin of tetanus and its serum or antitoxin treatment, but have no personal experience with such mode of treatment.

As internal prophylactic remedies for tetanus in such cases as its occurrence might be anticipated, the patient should be quickly brought under the influence of quinine and such influence constantly maintained, and such other constitutional remedies administered as may be indicated. But opiates should not be administered to tetanus patients.

If tetanic spasms are threatening or already occurring when the physician is first called, strychnia, 1-50 to 1-20 gr.—for adults—should be administered hypodermically immediately, and dose repeated every one or two hours in such quantity as the severity of the spasmodic action would indicate; the spasms or spasmodic tendency will gradually cease, as the system comes under the influence of the strychnia; if the patient is not already too far exhausted by the depressing primary causative influences, or by the exhaustive influences of the tetanic spasms.

The strychnine influence should be maintained until spasms do not threaten to recur, when the strychnia may be withheld, while the patient is closely watched. In many cases other remedies may be advantageously combined with hypodermics of strychnia, as small doses of digitalin or atropia, but never morphia.

Convalescence may be made more comfortable and complete recovery hastened by the administration, preferably by the mouth, of such restorative remedies as may be indicated in each case. Mild continuous galvanic currents, mobile, in long seances, are often very effective to relieve muscular soreness and stiffness and quiet nervousness.

Tetanus neonatorum is rarely cured, but can be quite surely prevented by proper dressing and care of the cord.

We have never had a case of trismus nascentium to occur under our personal care and management during a general

and obstetric practice of over thirty years, while cases were occurring, from time to time, in the same communities where and when we were practicing. We believe that tetanus, in all its forms, in the great majority of cases, can be prevented or cured by timely proper prophylactic or curative treatment.

617 Colorado Street.

MALARIAL FEVER: DIFFERENTIAL DIAGNOSIS FROM TYPHOID; TREATMENT.

BY C. C. NEIL, M.D., HUNTLAND, TENN.

In dealing with this subject we will notice only the remittent form of malaria, as this is the only form that is likely to be confounded with typhoid. Judging from the literature of to-day no form of malaria attracts the attention of the profession as does typhoid. We can hardly look through a medi cal journal without finding one or more articles bearing on typhoid fever and its treatment, and when we have read them we have only found that some one is claiming a new discovery for treating this malady. It has baffled the skill of the profession for ages, but at last is forced to succumb to this or that specific, and instead of treating our typhoid patients for weeks as in days gone by, we are told now to treat the fever a few days with some one of the so-called specifics, when it will disappear and the patient is then able to take care of himself.

All of this leads us to the conclusion that there are mistakes being made in diagnosis, and the quick cures that we hear so much of are only cases of mild remittents. Many of the more stubborn ones are remittents of a graver type, for we must remember that there are cases of remittent fever that will become continuous and present many of the typhoid symptoms if not arrested by proper treatment in the earliest stage.

Some one has said that there is nothing in a name, but (call a severe case of remittent fever, typhoid), and give the Woodbridge treatment, and if your patient lives to discover your mistake he will always believe that it is best to call things by their right names. So now without attempting to offer anything new let us see if we can remove the rubbish

and bring to light some of the old landmarks that distinguish one fever from the other.

Malarial miasma emanates from the surface soil under certain conditions:

1. There must be a low marshy country or district.

2. There must be sufficient rainfall to overflow and thoroughly saturate the soil.

3. This must be followed by a drought with an intense sun heat continuing long enough to thoroughly dry the marshy soil; as long as the drought continues we need have but little fear of malarial trouble, but on the occurrence of enough rain to saturate the parched soil there will be an outbreak of malaria in one or more of its various forms, provided the rain falls before the appearance of frost.

Malarial fever is not contagious, but is disseminated through atmospheric media, and only those who reside near the site of the common cause are in danger of an attack.

Typhoid virus makes its appearance under different conditions and emanates from the water or milk supply, sewerage pipe, or some foul cesspool, is highly contagious and often spreads from house to house after the original cause of infection has been removed.

Now let us draw the distinction at the bed side. As a rule remittent fever is ushered in abruptly with a chill, but there are exceptions, and some epidemics may be characterized by a forming stage of three or more days. In typhoid fever the stage of prodromus is long and tedious, extending from a few days to three or four weeks, the patient hardly knowing whether to stay up or go to bed, till finally the day comes when he remains in bed not because he feels much worse, but that he does not feel like getting up. The body temperature in remittent fever will run as high or higher in the first fever exacerbation as at any time during the attack. But not so with typhoid; there is almost always a gradual rise in temperature for the first three to five days from the time the patient takes the bed. In the beginning of a remittent fever it is common to find abdominal tenderness, but confined to the epigastric or hepatic region; while in the onset of typhoid abdominal tenderness is not common, but makes its appearance a few days later and almost invariably in the right iliac region and accompanied by a gurgling sound when pressure is made. With remittent fever constipation is the rule, to which there are few exceptions; while in typhoid diarrhea is generally a troublesome feature.

The characteristic skin eruption of typhoid never makes its appearance in malarial fever. One of the chief characteristics of malarial fever is a remission occurring at regular intervals, the temperature falling from two to four degrees. In the time of the remission the patient feels some degree of comfort and presents a more cheerful expression. In typhoid it is not uncommon to find morning temperature lowered from one to two degrees, but accompanied with depression and indifference.

One other point to be considered is the season in which the fever makes its appearance. If an outbreak of fever occurs at any time from the first of June to the middle of October, you may be pretty certain that it is of malarial origin, although it may make its appearance in the summer and continue far into the winter. When this is the case you will find the winter cases to assume an adynamic type and not yield to treatment as do the summer cases. The typhoid virus on the other hand best develops in the latter part of the autumn, the winter and early spring months.

I wish to call attention to an epidemic of remittent fever that came under my observation, while living at Rally Hill, Maury County, in 1874.

There are two creeks near the village, one on the east and one on the west, discharging their waters by a common mouth into Duck River, some four miles south of the village. The banks of these creeks are very low and are frequently overflowed by the spring rains. Two miles above the mouth of these creeks is a mill pond. In this locality malaria makes its appearance in some form every summer or fall. I have witnessed it there from its mildest to its most malignant types. The year above referred to was exceedingly dry and hot from the first of May to the latter part of August, at which time there was copious rainfall. Up to this time we had scarcely any sickness; but on the third day after the rain I was called to seventeen cases of remittent fever, and in a short time there were but few houses in the bounds of my practice that did not contain from one to a half dozen cases of fever.

The epidemic continued through the months of September, October and November, gradually abating in the latter month. I found no trouble in arriving at a correct diagnosis on my first calls to the cases referred to, from the fact that the fever had appeared at the proper season and under proper circumstances for the development of malaria. The surface

of the ground had been ready for sometime, and when the rain fell it completed all necessary conditions for developing and setting free malarial miasma.

The attacks during this epidemic were mostly ushered in by a well pronounced chill, followed by high temperature and great prostration, remissions in most cases not occurring until the third day. There was considerable tenderness over the epigrastic and hypochondriac regions. In most cases troublesome vomiting occurred, the bowels were constipated, with some exceptions, in which diarrhea was troublesome, the stools showing a deficiency in bilious matter. In treating these cases no time was lost in waiting for a remission, but the sulphate of quinine was administered from the start, giving as much as forty to sixty grains during twenty-four hours. For reducing the high temperature I gave small doses of tincture of veratrum viride every hour or two, and had patients frequently sponged with cold water. As there is always more or less engorgement of the liver in malarial fever I gave calomel in doses of one to two grains, repeated at intervals of fonr hours, until the liver was fully aroused. Under this treatment the fever was arrested in from six to fifteen days.

This epidemic, to my mind, was purely simple remittent fever, yet some of the physicians who were engaged in treating it diagnosed it as typhoid and treated it accordingly. If they administered quinine at all it was in small quantities, not giving it with a view of arresting the paroxysm. The result was that the fever continued from three to six weeks, with a slow and tedious convalescence. But this is not the worst; several deaths occurred under the typhoid treatment.

We now go to Huntland, Franklin County, Tenn. The Cumberland Mountains lie two miles south of Huntland, the Elk River eight miles north. This belt of country is dotted with numerous swamps, but fortunately for us the greater number of them is protected from the heat of the sun by a dense forest, but lying near the town of Huntland there are several of these swamps that have been cleared of the forest, rendering it suitable for the development of malaria. For the last five months it has been endemic with us. The months of May and June were exceedingly dry and hot, and also very healthy until the latter part of June. We had an abundance of rain, immediately after which we had an outburst of fever, quite a number of attacks occurring in a very

few days. The most of the victims were those residing in the vicinity of the cleared swamps.

This epidemic was characterized by some show of malignancy. The attacks were violent, the temperature of a large per cent. of the cases running as high as 105.6. The first two or three remissions were not well marked; there was an unusual amount of tenderness over the epigastric and hypochondriac regions. Most of the cases were preceded by a stage of prodromus running from three to ten days; the patient would then be seized with a chill or chilly sensations, followed by high temperature and great suffering. The cases, with few exceptions, were constipated; a few cases had hemorrhage of the bowels.

This epidemic was diagnosed by some of our physicians as malarial remittent fever, and was treated with the malarial specific sulphate of quinine, with calomel as above mentioned. The fever yielded under its influence in from six to fourteen days without an exception. Some of our physicians differed with us and called it typhoid, and gave their favorite treatment for that malady. Their patients recovered in from five to eight weeks.

We have two proofs that this was purely malarial fever; first, it yielded to quinine; second, it abated immediately after the first frost.

The Medical and Surgical Bulletin,

OFFICIAL ORGAN,

Alumni Association, Medical Dept., University of Nashville.

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EDITORIAL.

PRIZE ESSAYS.

THE BULLETIN will give the following prizes for essays to be read at the next annual meeting of the Alumni Association of the Medical Department of the University of Nashville, which will be held upon the day immediately preceding that of the school commencement:

The first prize will be twenty-five dollars.

The second prize will be fifteen dollars.

The third prize will be ten dollars.

Each essay shall be based upon cases that have occurred in the practice of the essayist, or upon original work done by him or her.

The essay shall contain not less than one thousand or more than four thousand words.

Only alumni of the school who are not connected with it in a teaching capacity will be permitted to compete for these

prizes. All competitors must be present and read their papers in person.

A committee will be appointed on the day of the meeting to act as judges of the contest.

The prizes will be awarded to the successful essayists at the same time and place that the diplomas are conferred upon the school graduates.

The essays winning the prizes shall be given the BULLETIN for publication. All competitors will be required to send their names with the titles of their papers to the editor of the BULLETIN on or before the 15th day of March.

THE PUBLIC DEMAND FOR HIGHER MEDICAL EDUCATION.

Never in the history of medicine has there been the activity that pervades its every department in these closing years of the nineteenth century.

Surgery is making enormous strides, rushing boldly into paths untrodden before, delving into depths once thought unfathomable, saving lives that until now were given over without a struggle into the clasp of that fell destroyer, Death. Medicine, aided by the microscope, is making clear problems whose solutions in the past were not even dreamed of; is revolutionizing what was considered fixed principles in the causation of disease, and is placing treatment upon a more rational and scientific basis than it ever occupied before.

Pharmacy is not behind in the advance. The active principles of drugs now take the place of the crude material; a tasteless granule or capsule carries a small but potent extract to a certain result, while in former periods a nauseating decoction, swallowed with loathing and difficulty, bore an uncertain mass to a doubtful end. Prescriptions are no longer written for such a multiplicity of drugs that, whether the patient is suffering from eczema or erysipelas, all the indications will be met.

The public long since recognized that no one man, be he never so talented, could master the whole profession of medicine and produce the best results in all its parts. Specialism was thus born of a demand, and has grown because it has been well nourished. The most unthinking require no arguments to convince them that those who devote the greater part of their time to working in one direction are more competent to advise in their specialty than are those who give it a very much divided thought. This very much abused but discriminating public is not only anxious to seek and employ the best equipped specialists, but is also quite willing to pay them larger fees for their services, because they possess greater excellences. The larger fee and the public demand for greatest knowledge are the most potent factors in causing the enormous advances now being made in the science of medicine. What will the work pay? When the subject is properly analyzed this will be found to be the great question behind the burning of the midnight oil.

In their daily lives medical men no doubt do much work for the love of mankind; but look the world over and we cannot fail to be impressed with the fact that those medical thinkers who are doing most for the advancement of the profession of medicine and for the good of humanity are also receiving the richest prizes, reaping the greatest harvests. This is only as it should be and it answers the question, "Does the work pay?" It certainly does pay, and the rewards stimulate others besides the successful ones to greater efforts in order that they may attain to a degree of perfection. The discriminating public has learned to demand this excellence and to pay for nothing less. Laws are being enacted in every land to elevate the medical standards. Little schools, with indifferent teachers and poor equipment, are being crowded out of existance. The larger institutions which possess laboratory and clinical advantages of the very best cannot even with their lengthened courses turn out men sufficiently educated to meet the public demand, and as a consequence post graduate schools have been established in

nearly all the large cities. This same demand for superior knowledge has caused medical societies to spring up all over the land.

Post graduate schools are excellent institutions for those who are able to leave their practices for weeks at a time, but they are not without objectionable features. They compel absence from business, entail considerable expenditure, and give in return an opportunity for work *and a diploma whether the work is done or not.* Such certificates may, from an unsuspecting public, gain for its holder a certain amount of money under false representation, since it seems to vouch for that which may not exist, or for work that was never done.

Medical societies are practically post graduate schools where men go for a day or two and gain much information. Attendance upon them entails but small expense, takes but little time from home and business, yet stimulates to thought and forces reading. While at these meetings men have an opportunity of discussing with each other questions that have puzzled them from time to time in their work; hence without much loss of time or money they are enabled to learn valuable lessons, to refresh their memories, stimulate their flagging energies and return to the fields of their labor better equipped to meet the demands of the public upon them for professional skill. The medical men most sought after in any community are those who attend the medical societies. The public thus demonstrates its appreciation of education. It certainly pays to be at the top. The best is always in demand!

Busy men find it difficult to find the time to prepare papers for society meetings, yet good essays are essential to the success of a medical society as an educator. In this sense of the term the BULLETIN desires the next meeting of the Alumni Association to be a success. It is more particular as to the quality of the papers to be presented than about the number of members present, though it is anxious that all of the alumni possible should attend. To this end it is offering the prizes elsewhere announced in this number. The

Medical Department of the University of Nashville is desirous that her alumni in the future, as in the past, shall be known as thoroughly educated physicians. She is sparing no pains to this end, and she looks to her every graduate for assistance, by conscientious effort, in accomplishing her great work.

IGNORANCE LEGALIZED.

The following prescriptions were given by a legalized practitioner of medicine to a patient complaining of a swelling of two months' duration, over the gluteal region, which proved under surgical treatment to be an abscess caused by tubercular disease of the bone:

"℞ Aletris cordial, i Bot.

"Sig.: One teaspoonful 3 times a day in some water before meals."

If this failed to cure, the patient was directed to take the following prescription, with the positive assurance that it would cure and that no operation would be necessary:

"℞ Liquor Cedans, i Bot.

"Sig.: One teaspoonful 3 times a day before meals. Sig. ——— ———"

The patient believed that if she followed these instructions she would be wasting the money necessary to purchase the medicine, and hence sought other advice and was referred to a surgeon, who operated with the result as stated above.

Was the advice given in the first instance the result of ignorance, carelessness or dishonesty? We do not believe that it was dishonesty because the man would be a fool who would attempt to extort fees from a patient so suffering. That it was not carelessness is proven by the fact that the swelling or tumor was referred to and operation for its relief dismissed. There seems to be but one conclusion to draw, and that is *ignorance* produced this farcial treatment.

Surely the powers under the law granted to the Board of Medical Examiners are too limited, since such a man can

thus, in his ignorance, legally jeapordize the lives of his fellow beings.

The following letter is interesting reading while we are upon this subject of what might be styled "Frauds Under the Law's Protection":

"*Dear Doctor*

"I want you to com At Wonce to Meet me At Mr —— in A case of confinament and Bring your Instroment to Help to Proform An Operation Bring chloroform with you

"Yours trully

"Dr ———

"Com in Hast"

"THE WAY OF THE TRANSGRESSOR IS HARD."

A physician in the State of New York was convicted for producing an abortion, and having served his term in the State's prison, resumed the practice of medicine. The New York County Medical Society had him indicted for violating a State law, on the ground that his punishment in the State's prison, deprived him not only of citizenship, but also of the right to practice medicine in the State. He was convicted and fined; appealed the case to the Appellate Court, which set aside the verdict. The case was carried to the United States Supreme Court, of which nine judges confirmed the verdict of conviction. Now, henceforth, let transgressors beware. The loss of citizenship is severe; but to lose one's means of living at the same time is a perpetual disgrace. Abortionists should learn that medicine is not a trade. No other vocation of men is lost with citizenship; only medicine. The United States Court has placed a high estimate on the noble calling, too often ignobly followed.—Medical Herald.

SECTION ON MEDICINE.

UNDER CHARGE OF W. L. NICHOL, M.D.,

PROFESSOR OF DISEASES OF THE CHEST, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; AND

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PROFESSOR OF PRACTICE OF MEDICINE AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF THE BRITISH MEDICAL ASSOCIATION, ETC., ETC.

THE PROGNOSIS OF CARDIAC DISEASE IN ITS BEARING ON LIFE INSURANCE.

In a discussion on Sir William Gardner's paper before the British Medical Association the following opinions, among others, were expressed:

1. A very slow pulse was not of such danger to life as had been suggested by Sir William Gardner.
2. The walls should be considered as much as if not more than the valves of the heart.
3. The normal apex beat was insisted upon as a criterion of a normal beat.
4. Definite conclusions in certain cardiac cases, notably the mitral form, should not be arrived at earlier than twelve months after the first observation.

THE DIAGNOSIS OF SCIATICA.

Accordiug to the Philadelphia Polyclinic for November 12, the sign of Lasique is a valuable one in the diagnosis of sciatica. If the thigh is flexed upon the pelvis, with the leg fully extended at the knee joint, considerable pain is produced when sciatica is present, as the sciatic nerve is in this way stretched.

TOXÆMIC DELIRIUM IN HEART DISEASE.

Eichhorst (Deut. Med. Woch., June 23, 1898) draws attention to the fact that patients with uncompensated heart disease are often greatly improved by rest alone, but that not

infrequently cardiac tonics are necessary. The effect of this treatment is often very rapid, when the urine increases to 2000 and even 5000 c.cm. in the twenty-four hours, and the characteristic symptoms are sometimes noted in the patient which can only be attributed to auto-intoxication. Somnolence may first appear and then delirium. At times the patient mumbles incoherent words and sentences, or shouts out or becomes excited and violent. Thus to the apathetic state there succeeds one in which there is much tossing about of the body. The pupils are small, and often unconsciousness may follow. The patient breathes deeply and hurriedly, but the face is not cyanosed. This condition may last several days or even extend into the second week, to cease when the œdema has disappeared, and the polyuria due to the digitalis and diuretin has come to an end. This condition is not serious, all the author's cases recovering. An intermission of the digitalis and diuretin is not necessary. There was no albuminuria and hence the symptoms could not be looked upon as uræmic. Eichhorst believes that they are due to the absorption of some poison into the blood from the œdematous fluid which is not excreted quickly enough by the kidney. In this way the central nervous system is poisoned.—British Medical Journal, Oct. 15, 1898.

YELLOW PALMS AS A SIGN OF TYPHOID FEVER.

Tilopowict (Centralblatt fur de medicinische wissenschaften, 1898, American Journal of the Medical Sciences, October) calls attention to a symptom of typhoid fever not generally looked for. The palms and soles acquire a yellow color, which is more marked in proportion as the skin is thin. This change comes on in the early days of the disease and lasts until the end, disappearing with convalescence. The author thinks the sign due to the changes in the circulation, especially to anemia of the skin, as a result of which the subcutaneous fat shows through.—New York Medical Journal.

In the New York Medical Journal for December 17, 1898, Dr. Charles A. Church, of Passaic, N. J., reports a case of tetanus successfully treated by "trephining and the intracerebral injection of antitetanic serum." As far as was known to the author this case was the first to be treated by this method in this country and it will therefore be of especial interest to

the profession, particularly when the successful issue is considered.

The patient was a man, aged twenty-seven, who in a fall into a window had the calf of his leg cut almost entirely away. The wound bled profusely for two hours before a physician could be found to dress it. On the second day he was very restless, complained of pain in the leg, vomited large quantities of water, was very thirsty and in the evening became delirious. Temp. 102.8°; pulse 140, irregular; respiration 32. On the third day he complained of great weakness, and pain in the leg; pulse 154. The flap was found to be gangrenous and was removed under an anesthetic. Fourth day, temp. 100.4°; pulse 98; respiration 20; comfortable, sleeping and taking nourishment. He did well up to the twelfth day, when his temperature was found to be 102.4°; pulse 108; respiration 30.

The next day, the thirteenth of his illness, he complained of illness of the jaws and difficulty in eating, otherwise was comfortable; temp. 100.4°; pulse 100; respiration 20. Up to the 17th day under the use of hypericum and hot fomentations to the face and neck he did well and could open his mouth wider and eat easier, but on this latter date the stiffness of the jaw increased and extended to the back of the neck, with slight tendency to opisthotomus, some difficulty in breathing and profuse perspiration. The next day general tonic spasms had developed, which were frequent, but of short duration; patient was very restless and could not eat. Temp. 100.8°; pulse variable, very weak and generally very rapid. Twenty-five c.c. of Gibier's antitetanic serum was administered subcutaneously and repeated eight hours later. Thirty grains of chloral hydrate was given per rectum. The next day (the 18th) he was a little better, but the improvement was but temporary, as by 10 a.m. he was worse than ever. The patient was now anesthetized and a small button of bone about one quarter of an inch in diameter was removed by the trephine from the skull at a point about two and a half inches above the external angular process of the frontal bone. Sixty minims of the antitetanic serum were then very slowly injected into the brain at this point, and the same quantity on the opposite side. At the same time twenty-five c.c. were injected into the veins, and twenty-five c.c. of antistreptococcic serum were injected subcutaneously. There were no spasms while under the anesthetic, but they returned as soon as its effects disappeared.

On the nineteenth day three injections of the serum, twenty-five c.c. each, were given, eight hours apart. From this time twenty-five c.c. were injected intravenously, twice daily, for a few days and then daily. In all about three hundred and seventy-five c.c. of serum were injected.

The bacilli of tetanus were found in the pus taken from the wound, which injected into the legs of two guinea pigs produced tetanus.

The spasms gradually disappeared, and the patient made a complete recovery.

THE "PRETUBERCULAR" STAGE OF PHTHISIS.

Dr. H. P. Loomis (Boston Medical and Surgical Journal, November 17), in a paper presented to the American Climatological Association, likened the pretubercular stage of phthisis to the stage of transient albuminuria found in a case developing nephritis. While a majority of tuberculous patients apparently start with local manifestations, a large number have exhibited for a longer or shorter time well marked evidences of an antecedent morbid condition of the general system. Dr. Loomis first considered the subject of the relation of the weight of an individual expressed in pounds to his height expressed in feet. The ratio constitutes the "corpulence," a term introduced by French writers, and for men the standard is twenty-three. This factor should, however, be taken in connection with the "vital capacity" to be of value. The latter is obtained by taking the thoracic perimeter (the mean of expiration and inspiration) and dividing by the height For each inch of height of man there should be three inches of vital capacity as measured by the spirometer; and in the case of women 2.6. The thoracic perimeter should never be less than half the height.

The third element in making a diagnosis is the constitutional condition. Dr. Loomis believes that chloroanaemia is often one of the most pronounced symptoms of the tubercular stage of phthisis. In tubercular chloro-anaemia the haemoglobin never falls so low as in true chlorosis. Digestive troubles precede the deposition of tubercles in many cases. Indigestion may be a forerunner of phthisis.

The character of the pulse is a fourth element. It is found that in the very beginning of phthisis a change in position of the patient has very little influence on its beat. Dr. Loomis placed the ordinary variation in healthy men, on change of

position, at fifteen beats per minute. The relative feebleness of arterial pressure, as noted by Wells, may be estimated by suitable instruments; it probably puts the organism in a state of microbic receptivity.

COMMON ERRORS IN DEALING WITH PULMONARY TUBERCULOSIS.

Dr. Frederick I. Knight (Boston Medical and Surgical Journal, November 17) points out five very common errors made by general practitioners as regards pulmonary tuberculosis. He first calls attention to the failure to make an early diagnosis. The reasons suggested are the tendency of the patient to make light of small ailments and of the physician to avoid making a careful physical examination whenever slight ailments, such as persistent cough or hæmoptysis, present themselves. If the physician is a personal friend as well as the medical adviser, he may shrink from a knowledge of the results of a physical examination. Again, complaints of fever are apt to be put off by a suggestion of a "touch of malaria."

2. Another fault lies in failure to admit the gravity of the situation as soon as discovered. The author quotes Niemeyer as saying that the danger of a consumptive patient is that he become tuberculous. Dr. Knight would amend this, in the light of modern pathology, by saying that the danger of a tuberculous patient is that he become consumptive—i. e., as he explains it, subject to secondary infection. He thinks it better that the patient should be at once informed of the gravity of the situation so as to enlist his thorough co-operation in the efforts at recovery.

3. Dr. Knight criticises the tendency while temporizing to resort to treatment that is not only useless, but at times positively injurious. In this category he stigmatizes the routine use of cough syrups, cod-liver oil, creosote, etc., in the following terms: "Cough syrup, cod-liver oil, and creosote do a large share in hastening the decline of patients. If any sedative is required, it should be given in as simple a form as possible, and without syrup. I do not mean to say that cod-liver oil never does good, for there are patients who can take and assimilate it with ease, and greatly to their benefit, but it is cruel to prescribe it in a routine way without selecting cases and watching effects. Who has not many times seen patients with thickly coated tongues swallowing large doses of oil faithfully three times a day, eructating it all the time,

and capable of assimilating neither that nor any other food? Neither do I deny that creosote does good in some cases in modifying the bronchial secretion and improving digestion, but I believe that large doses, as a rule, take away the appetite, and do more harm than good. It, like cod-liver oil, should be administered tentatively." He also protests against a routine method of prescribing whisky and alcoholic stimulants, as tending to depress the vital forces. Patients in a febrile condition are also sometimes ordered to take exercise when they should be compelled to rest.

4. The indiscriminate sending of patients away from home is objected to—e. g., when the time of their stay is necessarily short, or when they are moribund, or when their means are such as to entail less advantages than they could attain at home. Moreover, when a removal is indicated, it should be carefully considered, and clearly located "for reasons."

5. The last error is the omission of sufficient medical supervision. Constant watchfulness is necessary in this disease.

SECTION ON NEUROLOGY.

UNDER CHARGE OF T. L. MADDIN, M.D.,

PROFESSOR OF NERVOUS DISEASES AND GENERAL PATHOLOGY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF AMERICAN MEDICAL ASSOCIATION, ETC., ETC.

PARALDEHYDE.

(Clinical Lectures on Mental Diseases by T, S. Clouston, M.D., Edin., F. R. C. P. E. Fifth edition, 1898.)

The drug I have used most extensively for the past nine years and like far better than any other pure hypnotic I have ever tried is paraldehyde. This is so valuable, so reliable and so free from risks, near or remote, that I think it cannot be too widely known by the profession. It is mainly a pure hypnotic, though I have lately seen it recommended in small doses as a stimulant and for the vomiting in pregnancy. It acts so quick that often the patient is sound asleep in five minutes after getting the dose. It does not interfere with the appetite for food next morning, nor ordinarily disturb the stomach or bowels. After a paraldehyde sleep there is no

headache, no lassitude, and several sane patients to whom I have given it have said that even the refreshed, comfortable feeling they have after natural sleep is present after it. That seems too good to be true in very many instances. I have no belief in any drug sleep being equal to nature's sleep in being " Nature's sweet restorer."

I am satisfied of this important fact, however, in regard to paraldehyde, tflat while the first part of the sleep after a dose is drug sleep, this passes gradually into what is really natural slumber. In fact, it puts to sleep and nature continues the slumber. Another fact of perhaps greater importance still is this: the use of paraldehyde for a time will, in some cases, restore the sleep habit of brain, and its use can then be discontinued readily, and with no felt want and craving by the patients.

It is of no use, but the contrary, given through the day as a sedative. It seems to act on the very highest cortical cells and not on the motor areas, cortical or basal. In cases of mania I often add a drachm of one of the bromides to the dose at bed time, and in very acute and restless cases a drachm of bromidia. It sometimes excites when given in too small doses. Its nauseous taste is the worst thing about it. It may be given per rectum, and acts well in this way.

The dose varies enormously according to the case; generally I begin with forty minims or a drachm, and go up to two drachms in ordinary cases. In many cases of confirmed insomnia, in melancholia, and in acute mania I have given three and even four drachms, and in one case six drachms. Here we give it mixed with the tincture of quillaya and a few drops of chloric ether in cinnamon water or in capsules; sometimes the odor of it remains with the patient twenty-four hours after the last dose.

I do not know how much would be a poisonous dose. By mistake a small delicate woman in my medical care took one ounce. She slept a stertorous sleep for twelve hours; could be partially aroused and was given coffee while under the influence of the medicine. She seemed none the worse afterwards. Its only effect upon the heart is to strengthen its action soon after it is taken. In inveterate cases of insomnia a night portion may be continued from one to six weeks, and then discontinued with a restoration of the sleep habit. In melancholia, with restlessness of women at the climacteric time, or other causes, the use of the paraldehyde in commanding doses for a sufficient time realizes the best results.

The following case is mentioned: A woman with suicidal melancholia and great impulsiveness had not slept naturally more than one or two hours at a time for two years, required a special night attendant. It required two drachms at bed time to secure seven hour's sleep; this was continued every night for six weeks; she took her food well during the time and gained weight. It was then stopped and the patient began to sleep naturally, and has never needed a draught since for a period of eighteen months, and very soon we were able to discontinue the special night attendant. Such a case makes a deep impression on any one who has the heavy responsibility of treating it. The result is in accordance with the physiology of the brain so far that we know that habits and "periodicities" are normal characteristics of its functions that can often be broken or restored by outward conditions.

THE BROMIDES AND CANNABIS INDICA.

The combination of the bromides with cannabis indica, which I recommended in 1868 and have used continuously since, I still think is one of the best sedatives. It is mild in its general effects, and does not affect the nutrition. Patients often gain in weight during its use. They can work and walk while under its influence, and impulsiveness of all kinds is diminished by it.

My original experiments, which were very carefully made, have been confirmed in the main by a very large clinical experience. The use of this combination as a sedative, motor depressant and diminisher of reflex irritability in mildly maniacal cases, in certain cases of acute mania with hysterical symptoms and noise in women, in epileptic mania not of the unconscious delirious type, in chronic mania with paroxysms of exacerbation, in all cases of brain excitement with more or less regular periodicity of symptoms, and in many cases of suicidal melancholia characterized by motor excitement and homicidal violence—in all of these I have used this combination and found it an admirable sedative without disturbance of the digestive functions and without loss of nutrition in a very large number of cases. I begin with ten minims of the tincture of the cannabis and thirty grains of one of the bromides for a dose, increasing the former to forty-five minims, and the latter to one drachm if necessary. I commonly add some aromatic spirits of ammonia to the mixture as a cardiac stimulant, and also to keep the resin more in solution.

When it is required to continue the medicine for a protracted time, I add some digitalis, or ammoniated tinct. of valerian, hyoscyamus, lupulin, or belladonna—according to the indication of the case under treatment. The mental results were the following: there was less sudden impulsive action, the constant talking got less, the tendency to shouting was lessened or stopped, there was less resistance to control, there was a drowsy quietude induced. The emotional state was one of greater happiness, and intellectually there was less suspicion; in some cases hallucinations of hearing abated; in many cases walking and working could be engaged in—inhibition was improved.

HYOSCINE.

If a pure motor depressant is indicated, there is no doubt that hyoscine is the best drug to get the effect of simple motor quietude. When the chief symptoms are excessive restlessness, shouting, tearing, violence and motor impulsiveness of all kinds, all of the morbid energizing of the cortex seems in such cases to be concentrated in the motor centres. If there are no personal contraindications, hyoscine may be tried hypodermically in small doses 1-200 gr. increased to 1-30 gr. if required. So far as I have observed its effects, it is the best drug for this specific effect. It has not in my cases affected the appetite nor depressed the heart's action unduly, except in one case when 1-75 gr. produced alarming stupor.

Doctor Clouston winds up his able analysis of drug indications to meet the emergencies that present themselves in neurotic patients, whether the pathology is in the function, is in the mechanism of reflex-motor, sensori-motor or idea-motor (psychology) with the administration; we use all neurotic medicines only to modify nervous energising in order that modification in one direction may arrest dangerous action in another, may stop dynamic exhaustion and encourage trophic repair, may so diminish undue reflex excitability in the nervous centers that dangerous reaction, mental and bodily, may not take place. Such good results we try to attain while we know that in most cases favorable conditions of life or the *vis medicatrix* really cures the disease. It is commonly a safer thing for the patients, and tends more toward natural recovery from his disease to provide a physiological outlet for morbid motor energy than merely to depress it directly by drugs.

VERATRUM VIRIDE IN PUERPERAL ECLAMPSIA.

Dr. John Gordon, in the *Lancet*, (January 15) reports a case of puerperal eclampsia in which he used five minims of the *fluid extract of veratrum viride*, hypodermically, with the result of lowering the arterial tension, slowing the pulse from 100 to 52 per minute; in twenty minutes it had become soft and full, the rigid os uterus was relaxed, labor progressed in a normal manner to an early and favorable result, without any further symptoms of eclampsia. The pulse remained down to 52 for five hours, and not higher than 60 at the end of five hours more. He recites that the physological action of veratrum viride is due to two alkaloids: jervin and veratroidin; the former reduces the force of the heart beats by a direct influence upon the cardiac muscles, and also promotes vaso-motor paralysis; the latter stimulates the inhibitory nerves, and thus slows the pulse; that both alkaloids are depressents to the motor centers of the spinal cord.

SECTION ON ABDOMINAL SURGERY AND DISEASES OF WOMEN.

UNDER CHARGE OF M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

UTERUS DUPLEX AND VAGINA DUPLEX, WITH PREGNANCY IN ONE HORN; EXCISION OF VAGINAL SEPTUM; NORMAL LABOR.

F. Blume, M.D.: Patient was at time of pregnancy twenty-seven years of age and had been married one and one-half years. Gestation took place in left uterus. The diagnosis from pregnancy associated with fibroid tumor being made and the double condition being proven, the vaginal septum was removed lest it might interfere with labor.

The patient went to term and the delivery was in every way normal.

Dr. Blume calls attention to the difficulty in diagnosis in these cases.

(A correct diagnosis is necessary in these cases in order

that we may not interfere with the continuation of the pregnancy.—ED.)

THE IMMEDIATE AND REMOTE RESULTS OF SEVENTY-ONE ALEXANDER AND SEVENTY-ONE SUSPENSIO-UTERI OPERATIONS.

Dr. W. L. Burrage (N. Y. Med. News, 1898, LXXIII., No. 15, p. 453) makes the following general conclusions:

1. The Alexander operation is preferable to the suspensio-uteri operation, because it seeks to support the uterus by its natural ligaments.

2. The Alexander operation is indicated in retroversion, retroflexion and retroposition without ovarian disease.

3. In retroposition with tight uterosacral ligaments, posterior colpotomy, for the purpose of dividing the tight ligaments, may be performed with the Alexander operation.

4. In ovarian prolapse, especially if the ovarian ligaments are long, the Alexander operation cannot be depended on to raise the ovaries into a normal position.

5. One round ligament is not sufficient to maintain the uterus in place.

6. The Edebohls' operation, although requiring a longer time for its performance than the operation at the external ring, is the preferable operation, because by it the round ligament, being uncovered in the entire length of the inguinal canal, is less liable to be broken; also, because this method does away with the need of anteverting the uterus bimanually in the course of the operation; and finally, because of the secure manner in which the ligament is anchored and the inguinal canal closed, making subsequent hernia impossible.

7. Although the Alexander operation leaves two scars on the abdomen, they are so situated as to be covered by the pubic hair, and are subsequently less of a disfigurement than is one scar in the median line.

8. The suspensio-uteri operation is indicated in retroversion, retroflexion, and retroposition with ovarian or tubal disease, whether inflammatory affection or prolapse.

9. The best method of performing the suspension is by means of absorbable ligatures passed through the anterior and upper portions of the fundus uteri and through the parietal peritoneum and transversalis fascia only. Thus an elastic band is created between the parietes and the uterus, which

maintains the uterus in place, and does not cause interference with the enlargement of the anterior fundus during subsequent pregnancy.

10. Suspensio-uteri leaves but one weak spot in the abdominal parietes predisposing to hernia, instead of two, as in the Alexander operation.

11. In the great majority of cases neither operatiou is the cause of complications in subsequent pregnancy. Whatever complications do occur are not of a serious nature.

12. In all cases of doubtful diagnosis in which the condition of the ovaries and tubes cannot be determined accurately, the suspensio-uteri operation is to be preferred to the Alexander operation.—Post-Graduate.

SECTION ON OBSTETRICS.

UNDER CHARGE OF S. S. CROCKETT, M.D.,

PROFESSOR OF OBSTETRICS, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

MARRIAGE OF THE UNFIT.

Theft and murder are considered the blackest of crimes, but neither the law nor the church has raised its voice against the marriage of the unfit, for neither has realized that worse than theft, and wellnigh as bad as murder, is the bringing into the world, through disregard of parental fitness, of individuals full of disease tendencies. This has been left to our own profession, and we shall be unworthy of its traditions if we do not, each of us in his own particular sphere, strive to bring nearer the day when, not in a heritage of woe but of blessing, the deeds of the fathers shall be visited upon the children unto the third and fourth generation.—Dr. Harry Campbell, London Lancet, September 10.

FALSE LABOR PAINS.

As soon as false labor pains are suspected a four-quart enema should be given at once, and then a quarter of a grain of morphine hypodermatically. The morphine may be repeated by the mouth in an hour or two if the pain lessens but does not disappear. Nothing stops the pain so rapidly as an enema. Do not think of cathartics. They take too

much time and may increase the irritation. In some cases it is impossible to stop the colic until after hot drinks, as ginger and peppermint, or inhalations of chloroform, and even hot fomentations and flax-seed-meal poultices have been used.—Dr. T. Mitchel Burns, Journal of the American Medical Association, September 17.

PROPHYLAXIS AND TREATMENT OF OPHTHALMIA NEONATORUM.

Of the 300,000 blind in Europe, 30,000, or 10 per cent., owe their infirmity to ophthalmia neonatorum. This is so alarming that it behooves us to seek some remedy. According to M. Galezowski (Revue of Hyg. et de Pol. Sanit, April, 1898) three conditions are indispensable in order to effect a cure in this disease: (1) Cauterization of the conjunctiva twice daily. (2) Continuation of the treatment from the beginning to the end of the disease. (3) Rigorous observation of the laws of antisepsis. In 1,490 cases of purulent ophthalmia in the newborn, Galezowski has found that 389 patients have lost their sight.—Medical Record.

THE PREVALENCE AND THE PREVENTION OF PUERPERAL INFECTION IN PRIVATE PRACTICE.

The battle over the question of the contagiousness of puerperal fever was won more than forty years ago. The principles of its prevention have long been applied in lying-in hospitals, and the value of certain methods is not for one moment questioned. By a curious anomaly the status of the private patient cared for in her home is entirely different, and she is subjected to unnecessary risks which the poor in hospitals do not assume. It is impossible to obtain public record of death from puerperal fever, other causes of death, such as typhoid fever or peritonitis, being given. The consultant obstetrician or gynecologist sees many cases. The mortality in large cities in the better class of private practice is two or three times as great as in lying-in hospitals. Reasons for this relate to the less resisting power to infection of patients unaccustomed to unclean surroundings; to the unwillingness of the community to tolerate any decided departure in the preparation of the lying-in room from ordinary household conditions; most of all to the attitude of opposition or indifference among a considerable number of physi-

cians in city or country toward any painstaking effort at asepsis.

Renewed attention was called to the valuable evidence from actual cases cited in Dr. O. W. Holmes' classical essay on the contagiousness of puerperal fever. The risks are the same to-day, if physicians go from cases of erysipelas or infection to labor cases. The essentials for practical obstetric asepis were stated as being very few. Four things, if carefully used, would largely banish septicemia.: (a) A new, cheap, hand-scrubbing brush, for each case, used ten minutes on the physician's hands with hot water and soap; (b) bichlorid solution for hands and external genitals; (c) napkins of any absorbent material folded to proper size, baked, in quantity, for an hour, in any oven, and taken from the original bundle one at a time; (d) a cheap white cotton suit, coat and pantaloons, carried to each case by the doctor and worn over his ordinary clothing; cost less than three dollars.—George Erety Shoemaker, M.D., in Philadelphia Polyclinic.

COLLEGE CLINICS.

GYNECOLOGY—PROF. M'GANNON.

Reported by Dr. A. Hudson, assistant to the Chair.

VAGINITIS.—Gentlemen: The case that we have the pleasure of presenting you this morning has the following history: She is a colored woman twenty-three years of age and a laundress. She is unmarried. Menstruation is regular and normal. She is the mother of one child now two years old. Delivery was without trouble and the puerperum presented nothing unusual. The family history is good, and the patient has enjoyed excellent health. At the present time she is complaining of a "misery in the womb," which began a week ago with a discharge from the vagina and pain when the water was passed.

We will examine this patient by placing her in the dorsal position with the knee well flexed upon the body. Inspection shows the parts about the entrance of the vagina to be red, thickened or swollen and bathed in a creamy discharge. The openings to the ducts of the vulvo-vaginal glands are red and pouting and exude a small drop of pus when pressed upon. The meatus urinarius also looks red and swollen and

pressure over the uretha causes a small quantity of pus to flow from it. The vaginal mucous membrane throughout is also red, swollen and bathed in pus. We have here the classical symptoms of inflammation of the vagina, pain, redness, swelling, heat and discharge.

It is of importance that we should, if possible, ascertain the specific cause of the disease. The most common cause of vaginitis with patients whose social condition is similar to that of the patient we have under observation, is gonorrheal infection. We would require a microscopical examination of the discharges to make the diagnosis clear. Even without that, the history, combined with the severity of the symptoms, is sufficient to warrant the opinion that the infection in this case is due to gonococcus.

Prognosis: Vaginitis, if not gonorrheal, of itself is not dangerous and responds readily to treatment. The gonorrheal infection, on the other hand, is a very serious disease and one that requires prompt and careful treatment to prevent its extension to the uterus, the fallopian tubes and to the pelvic peritoneum.

The indications for treatment are:

1. To relieve the patient's suffering.
2. To eradicate the disease without its extension.

The chief suffering of which the patient complains is: Pain during micturation and distress about the vulva.

The acidity of the urine causes much of the irritation, and is best treated by large doses of alkaline salts, such as bicarbonate of soda, acetate of potash. These may be combined with other drugs. A favorite prescription of mine in these cases is:

℞ Tinct. hyoscyam., ℥vi
Pot. carb., ℥ii
Fld. ext. trit. repens, ℥jss
Elix. arom., ℥ii
Ag. ad., ℥vi

M. Sig. Two teaspoonfuls every four hours.

The distress about the vulva can be ameliorated by hot fomentations.

The suffering of the patient having been provided for, we must take the necessary steps to not only eradicate the disease, but to do it before it has extended beyond its present site. This may best be done by washing out the vagina thoroughly with a solution of bichloride of mercury of a

strength of two grains to the pint; then place the patient in the knee chest position, so that the mucous membrane of the vagina may be put upon the stretcher and its folds obliterated. This occurs because the position causes the uterus to fall towards the diaphragm and the air rushes in and bellows the vagina. The whole mucous membrane must now be painted over with a solution of silver nitrate, twenty grains to the ounce, and then dusted over with iodoform or nosophen, after which the vagina must be packed with gauze.

We will now have the patient put to bed and each day treated locally after the manner I have just shown you. A week or ten days will suffice to effect a cure.

INTERMEDIATE EXAMINATIONS, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

MATERIA MEDICA—PROFESSOR EWING, DEC. 20.

1. (a) Name the paths of entrance of medicines into the circulation.
   (b) Give the advantages of the different methods.
2. (a) What are the conditions which modify the action of drugs?
   (b) Give rule for calculating the dose for a child.
3. (a) What are hypnotics?
   (b) Give an example of this class.
   (c) What is necessary for the production of sleep?
4. (a) What is opium?
   (b) Name its important constituents.
   (c) Give official preparations with the amount of opium in each, also the dose of each.
5. What are the chief indications for the use of opium?
6. Compare the action of morphine with atropine.
7. (a) Give symptoms of opium poisoning.
   (b) From what must it be differentiated?
   (c) Give treatment for a case of poisoning by this drug.
8. (a) What is nux vomica?
   (b) Name official preparations, giving the dose of each.
   (c) Give treatment for poisoning by this drug.
9. What organs are chiefly affected by opium, nux vomica, caffein, and digitalis?

10. (a) Give summary of the action of digitalis.
(b) How does its action differ from that of strophanthus?

SURGERY—PROFESSOR BROWER, DEC. 21.

1. Give changes which take place in the blood, blood vessels and peri-vascular tissues, in inflammation.
2. What is an ulcer? Give varieties and treatment of each.
3. What is an abscess? Differentiate from inflamed hernia, sarcoma and aneurism.
4. What is a gunshot wound? Describe wound of entrance and wound of exit.
5. Give difference between septic intoxication and septic infection.
6. Give pathological difference between septicemia and pyemia; symptoms and treatment of each.
7. What are the indications for redressing a wound?
8. What is hydrophobia? Give period of incubation; symptoms in the dog; symptoms in man.
9. How would you treat fracture of the clavicle to prevent deformity?
10. Give etiology, pathology, symptoms, differential diagnosis, prognosis, and treatment of intra capsular fracture of femur.

ANATOMY—PROFESSOR COOKE, DEC. 21.

1. (a) Of what kinds of tissue is bone composed and where is each kind found?
(b) Name the different methods of ossification, and give examples of each.
2. (a) Into what classes are bones divisible?
(b) Give an example of each.
3. Give the articulations and muscular attachments of the Sacrum.
4. (a) Between what bones is the transverse suture of the skull located?
(b) Give the boundaries of the middle fossa of the skull.
5. With what bones do the Temporal and Malar articulate?
6. Locate the following: (a) Coronoid process; (b) Glasserian fissure; (c) Crista galli; (d) Antrum of Highmore.
7. Give the muscular attachments of the Radius and Tibia.

8. What muscles are attached to (a) Great Trochanter; (b) vertebral border of Scapula; (c) posterior surface of Ulna?
9. Locate following foramina and name the structures passing through each: (a) Lesser Sacro-sciatic; (b) Jugular (For. Lac. Post.); (c) Foramen Magnum; (d) Foramen Rotundum; (e) Foramina of Scarpa.
10. (a) Give the subdivisions of the movable articulations, with an example of each.
(b) Describe the hip joint fully.

PRACTICE—PROFESSOR WOOD, DEC. 22.

1. Give the etiology, symptoms and treatment of acute gastritis.

2. Describe the symptoms and treatment of gastric ulcer. How would you differentiate between it and cancer of the stomach?

3. Define haematemesis and haemoptysis. Give the differential diagnosis between the two. What are the causes of haematemesis?

4. Name the differeent varieties of jaundice. State fully the etiology in each variety, and name the characteristic symptoms produced by it.

5. Describe fully the morbid anatomy of atrophic cirrhosis of the liver and its effects upon other organs. Enumerate chief symptoms.

6. Define bronchial asthma. What are its complications, and what is the diagnosis between it and "cardiac asthma"? Describe the treatment you would advise.

7. (a) Describe the symptomatology in a typical case of croupous pneumonia.

(b) What variations in the symptoms would you expect in an old alcoholic or a debilitated subject?

(c) Give the physical signs in the stage of red hepatization.

(d) Enumerate the dangerous symptoms in croupous pneumonia.

8. A man, aged 24, complains of having been short of breath, especially on exertion, for two weeks past. At first he had sharp pain in the right axillary region, and was feverish, but both these symptoms have now disappeared. Has a dry cough and has lost some flesh and strength. Temperature is now normal and pulse 84. On examination of his

chest it is found that the apex beat of the heart is in the sixth space, one inch and a half to the left of the nipple line. On the right side there is a uniformly flat note, on percussion, with absent breathing and vocal resonance below the spine of the scapula behind and the nipple in front; above this line the note is slightly tympanitic. Give your diagnosis and explain the production of each symptom and sign given.

CLASS LETTER.

The class has gradually increased in numbers since the opening of school until now it is much larger in size than in any previous year, and in every way is a most excellent class. Among its members are many who have taken their first or second years in other schools, but have sought the University of Nashville as their Alma Mater.

On November 7 the class held its annual election of officers in the college amphitheatre. From the several nominees Mr. William Jordan, of Triune, Tenn., was elected president.

A number of names were then put forth for vice-president. Of these Mr. J. E. Knighton, of Louisiana, was elected. Mr. Knighton is an excellent young man and an honor to his class.

The next office to be filled was that of secretary. Many names were put in nomination, but when the name of Miss Mary R. Baker of South Carolina, was mentioned all others were immediately withdrawn and Miss Baker was elected by acclamation.

Miss Venie J. Lee, of Virginia, was elected treasurer, several of the brother students bowing their heads in defeat before a favorite sister.

The office of class poet was specially instituted for Mr. Harry Lee, a born poet, who thinks and speaks only in poetry.

The entire class was well pleased with the results of the election, and the interest of the class will be the first thought in the minds of officers.

On December 3, 1898, the valedictory contest for '99 was held in the college auditorium. At the appointed hour the hall was filled to its utmost capacity, and a few minutes later the faculty and contestants entered. The exercises were in charge of the class president, Mr. William Jordan. The faculty were the judges and occupied chairs facing the rostrum.

The first contestant was Mrs. Alfred Holbrook, of Lebanon, Ohio. Her subject was "The Therapeutics and Physician of the Nineteenth Century and Therapeutics of the Twentieth Century." This was decidedly the most original speech of the evening. Considerable interest was manifested when Mrs. Holbrook's name was announced, as she is the first woman who has ever entered the list of contestants in this college.

The next speaker was Mr. E. L. Robertson, of Hazlehurst, Miss. His subject was "The Confederate Flag and Soldier," and this oration was excellent.

Then Mr. E. Baxter Wheat, of Cooper, Texas, was introduced. He told us, as only a Lone Star orator could have told, that "Life is a Tragedy." Mr. Wheat did his best and none of us could have done better.

Fourth upon the list was Mr. Albert Levi Townsend, of China Grove, Ala. He spoke upon "The Heritage of the Southern Youth." Mr. Townsend displayed much oratorical talent.

The "Eulogy on Dr. Wm. L. Nichol," as delivered by Mr. Harry Lee, of Cookeville, Tenn., was the oration of the evening. Mr. Lee was introduced amid clamorous applause, for he is a favorite of his class.

Mr. Enoch Tipton, of Rogersville, Tenn., was the last contestant. His subject was "The Demosthenes of the South." Mr. Tipton was one of the best.

When the contestants had finished the judges retired to decide who was the victorious one. When they returned Prof. Jacobs ascended the rostrum and announced the result, but how did he announce it! For twenty miuutes he held the audience (and the contestants) spell-bound as he carried each speaker in turn to the heights of success and dropped each in turn into the abyss of despair. He finally announced that the faculty had decided that Mr. Lee's oration was the best.

The audience was dismissed in an uproar of applause for the winner. The contest was the best ever held in the history of the college, and each speaker should be proud that he or she was a participant.

The oration of the successful contestant is here appended:

MR. LEE'S ORATION.

Mr. President, Gentlemen of the Faculty, Fellow Contestants, Ladies and Gentlemen: At this juncture of the event, I am constrained to use the language of a distinguished ora-

tor in an extreme Southern metropolis, when a son of Maine had changed his home for one beneath the genial rays of a southern sun, and when a vast concourse of people had gathered to hear words of wisdom from Henry Clay and others. He said when called upon to speak that when eagles were out it were time that bats like him should take their holes. However, I would not act in accord with my finest feelings were I to fail to carry out my portion of the programme.

On occasions of this character it has been my pleasure to hear from this and other rostrums great tributes paid great men. Such were Washington, Lafayette, Lincoln, Watterson, Grady and others too tedious to name. Then, too, I have seen portrayed in all its glory and beauty the Southern Confederacy, and seen unfurled the emblem of liberty, justice and civilization, the flag of our country. Whether this be a custom, a rule or an idea I cannot say. However, be that as it may, I trust I have enough of the chivalry of a Tennessean to come nearer home. I would, therefore, briefly sketch the life of a gentleman, an intellectual titan, a southron, yea, a Tennessean and a physician; a physician at the very mention of whose name every physician in this beautiful southland should reverently bow his head and respectfully raise his hat; a physician who stands as the peer of Cooper, McDowell, Gross, Sims, Hodgen, Pasteur or of any others. I speak, sirs, of none other than that landmark of Nashville and her greatest physician—Dr. William Lytle Nichol.

In the city of Nashville on October 8, 1828, like every one else, without his own consent and without his own knowledge, he was born into the world. His very early life I leave to history, and whether his boyhood days were depictive of "Peck's Bad Boy" or of George Washington I leave unsaid. But at the age of seventeen years we find him a graduate from the literary department of the University of Nashville, an institution whose prestige you may not question and whose peerage is not found in the dictionaries of famous colleges. This institution at that time was under the chancellorship of Sir Philip Lindsley, whose name is as familiar with the lovers of history as is McKinley's with the commonwealth of this country. The very mention of the school and its chancellor is all that needs be said to acquaint you with the foundation of his vast amount of learning. After his graduation he entered the office of Thomas R. Jennings as a medical student. Those who know him best are well aware of his intentions in thus acting; to be a physician in the truest

sense of the term was his greatest ambition. Possessed with the vigor of young manhood, the fearlessness of a Cæsar, the honesty of a Lincoln, he pursued his course for a term of months, then entering the office of the famous W. W. Jerred of Philadelphia, later graduating in medicine from the University of Pennsylvania, which had as its faculty Nathaniel Chatman, Samuel Jackson, Wm. E. Hanner, Robt. Hair, Wm. Gibson, George A. Wood and others of equal distinction. He served a term in the city hospital of Philadelphia with credit and honor both to himself and to that institution.

Successfully passing examination before the U. S. Board of Naval Examiners, he was given a commission and orders to accompany Ringold on an expedition then exploring the Northern Pacific. Too numerous were the places visited to here make mention. He touched at Norfolk, Foucha, Sydney, Australia; through the East Indies to Hong Kong; to Japan, entering the port Hakodate shortly after Commodore Perry had opened it to the world; through Behring Strait to the Arctic Ocean as far north as the Ice Barrier. After spending the summer here he returned to the United States, resigned his position and located in the city of Nashville.

Then it was that the Medical Department of the University of Nashville, always in the forefront of the battle of progress, created for this distinguished young physician the chair of physical diagnosis and diseases of the chest. He has held almost every chair in this department, and in 1896 was made Dean, which place he held until the date of his resignation in 1898.

I doubt not that the widespread fame of this splendid institution is in a large part due to this man. To some of you it is presumption indeed for me to attempt to say anything of this grand old man, and, I assure you, I do so with many apologies; for had I the learning of a Plato, the words of a Webster, the oratory of an Otis I could not approach his real self. His beauty did not fame him as did beauty fame the favored son of David, Absalom. He gained not his fame as did Longfellow in his power of peotry. He captured not the world by his matchless oratory, nor swayed the masses by his pathetic writings. But in his open face could be seen honesty, integrity, ambition and energy all combined. His manner was at all times gentlemanly, his voice low, sweet and musical to those whose love he would win; yet his opposing cry would send the blood to the heart like the blast of a bugle.

Snch was Nichol, possessed of the many noble qualifications which directed him to be a great and good man. On every occasion he was found battling for truth, denouncing falsehoods and falsifiers. That he has been a charitable man no one doubts. The night ne'er got too dark, the rain never fell too fast, the snow too thick that he did not lend an attentive ear and responsive heart to the call of the poor as well as the rich. As a teacher, let those who have by him been taught bear witness. His lectures were at all times thorough, practical and plain. He ever gave sound reason for every assertion made, instilling into the minds of his pupils that

> **The heights of great men reached and kept**
> **Were not attained by sudden flight;**
> **But they, while their companions slept,**
> **Were toiling upward in the night.**

As a practitioner, his presence in the sick room was a blessing, his words a healing. His wonderful store of knowledge, his quick precision, his accurate remedies made vanish before him symptoms and disease like a baseless fabric leaving not a wreck behind. If the deeds of good done by thls man could be written a volume of great size would be filled, and if I were allowed to ask, I'd say:

> **Almighty Father! let thy lonely child,**
> **Strong in his love of truth, be wisely bold,—**
> **O patient bard, by sycophants reviled,**
> **Let him live usefully and not die old!**
> **Let poor men's children, pleased to read his lays,**
> **Love, for his sake, the scenes where he hath been;**
> **And when he ends his pilgrimage of days,**
> **Let him be buried where the grass is green;**
> **Where daisies, blooming earliest, lingering late**
> **To hear the bee his busy note prolong—**
> **There let him slumber, and in peace await**
> **The dawning morn far from the sensual throng,**
> **Who scorn the wild flowers' blush, the red breast's lonely song.**

SOCIETY MEETINGS.

TRI-STATE MEDICAL ASSOCIATION.

At the annual meeting of this Association, at Birmingham, Ala., the following officers were elected and Chattanoogo, Tenn., chosen as the next place of meeting:

President, George A. Baxter, Chattanooga; first vice-president, M. C. McGannon, Nashville; second vice.president, W. D. Travis, Covington, Ga.; third vice-president, George S. Brown, Birmingham; secretary, Frank Trester Smith, Chattanooga- treasurer, Cooper Holtzklaw, Chattanooga.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

(Continued from last month.)

Abstract of the proceedings of the twenty-fourth annual meeting, held at Nashville, Tenn., October 11, 12, 13 and 14, 1898.

CONGENITAL SCOLIOSIS.

Dr. S. C. Baldwin, of Salt Lake City, Utah, read a paper on this subject. Scoliosis is, first, the most common of all deformities. Second, it is most often found in children under ten, rarely beginning after eighteen. Third, it is found more often in girls in the ratio of five to one. Fourth, the etiology is in a large number of cases very uncertain. Congenital scoliosis is very rare. Tubley, of London, in the latest English work on deformities, says that he has been able only to verify four cases.

The case reported by the essayist was first diagnosed as scoliosis when the child was twenty-one months old, but the father had noticed the "lump" ever since the child was first washed. The interesting features of the case are that the curvature is in the lower cervical and upper dorsal regions. There is some pressure on the cord, as shown by the more or less deficient development of the right side. The convexity of the curve in this case is to the left. There is partial paralysis of the fore-finger of the right hand. There is sweating and flushing of the left side, with none on the right.

The cause of the scoliosis in this case is thought to be the lack of amniotic fluid while in utero, probably allowing the muscular walls of the uterus to press on the fetus and hold it

in a faulty position, and in this way cause a wedge-shaped development of the bodies of the vertebrae. This theory has been advanced by Weissenberg, Hirsh and Schauz in the last year. In this case the mother was very small, and passed at the time of confinement so little water that she did not know there was any, and felt no motion comparatively during pregnancy.

Dr. Samuel G. Milliken, of Dallas, Texas, has seen one case of scoliosis in a child under one year of age, but he is not prepared to say whether it is congenital or not.

FIRST DAY—AFTERNOON SESSION.

Dr. William L. Baum, of Chicago, read a paper on

THE THERAPEUTIC VALUE OF MARMOREK'S SERUM.

Twenty-two cases have come under his observation in which the serum was used. Of these nineteen were cases of erysipelas, one of erysipelas plus tubercular nuchal glands, one of facial erysipelas during child-bed without septicemia and double labial abscess. The last was the one fatal case. The serum used was supplied by Parke, Davis & Co.

The deductions he draws from an analysis of the literature and his own experience are:

1. In pure streptococcic infections the serum undoubtedly exercises a favorable influence on the course of the disease.

2. In the mixed infections the influence of the serum is noticeably demonstrable, but it merits further trial as an adjunct to other treatment.

3. Considering the grave character of the complications of a non-streptococcic nature reported, ordinary rules of therapeutics demand that in such cases, as with diphtheria antitoxins all indicated therapeutic procedures must be employed as well as the serum.

4. In view of the fact that erysipelas streptococci and phagocytes have been found to exist side by side in the lymph channels, it is fair to assume that the influence of the serum is directly exerted bacteriologically on the streptococci and not entirely through a stimulation of phagocytic action.

5. The initial dose in all cases should be 20 c.c., to be followed by 10 or 15 c.c., according to the indications, every twenty-four hours.

Dr. Charles L. Minor said his experience is practically confined to secondary infections in tuberculosis. He has used

the serum of Parke, Davis & Co. with considerable satisfaction, and prefers it to Marmorek's.

Dr. Samuel E. Milliken has used anti-streptococcic serum in two cases, both of which terminated fatally. One was a case of abscess of the liver, the other a suppurative appendicitis.

Dr. William R. Jaques, of Chicago, called attention to infections in the pulmonary tract that he has found to be purely streptococcic, and in such cases he has advised injections of anti-streptococcic serum with good results.

Dr. Baum, in closing, emphasized the importance of diagnosing the kind of infection present.

Dr. Albert Bernheim, of Paducah, Ky., presented a paper and reported three cases of syphilis in which he administered blue ointment by the mouth with antiseptic results. He urges a thorough trial of this method.

Dr. James T. Whittaker, of Cincinnati, delivered the address on medicine. He selected for his subject "Diabetes Mellitus."

Dr. Andrew Timberman, of Columbus, O., followed with a paper entitled "Mastoiditis, When to Operate and How." The causes and symptoms of this affection were described. He divided cases of mastoiditis into two classes—the first comprising those complicating acute aural diseases; the second class, those complicating chronic aural affections. This division ignores primary mastoiditis, which is very infrequent.

Conclusions: Operative measures should be instituted

1. To preserve the function of hearing as well as to prevent a fatal issue.

2. Earlier in mastoiditis due to scarlet fever, diphtheria, and the worst cases of influenza, than when due to colds, measles, typhoid fever, etc.

3. In the acute cases of mild infection, when subsidence does not occur within, at most, eight days. (Schwartze.) A shorter period is safer in a virulent infection.

4. Recurrent mastoiditis due to any cause.

5. In mastoiditis complicating a chronic suppurative otitis.

6. In acute cases where there is a drooping of the lining membrane of the supero-posterior wall of the external auditory canal, carrying with it the membrane Shrapnelli; in chronic cases when at the same place a crater-like opening leads to the recessus epitympanicus and aditus and anthum,

even though in neither case symptoms immediately menacing life be present.

The author favors the typical or original Schwartze method of opening the mastoid antrum. Its success in given conditions justifies its application; its failure in given conditions has resulted in a more perfect procedure styled the Schwartze-Stacke, or radical operation.

Dr. J. Homer Coulter, of Chicago, maintains that the general practitioner should not treat cases of mastoiditis in which the symptoms are well defined, and no one who has not had considerable surgical experience should attempt the Schwartze operation.

Dr. J. A. Stucky, of Lexington, Ky., said that in many cases of necrosis of the malleus he has made a free incision along the posterior superior wall of the canal, curetted the diseased bone away, tampanned the canal lightly with iodoform gauze, and patients have done well without undergoing the radical operation.

Dr. Dudley S. Reynolds laid stress on the importance of instituting constitutional medication in the stage of invasion in cases of mastoiditis, saying that an ounce of preventive at this period is most preciously bestowed.

Dr. L. B. Grady, of Nashville, called attention to a point not mentioned in the paper—the differential diagnosis between mastoiditis and mastoid periostitis. If cases are carefully observed there is as much difference between the two conditions as there is between a periostitis of the tibia and an epiphysitis. This differentiation is of paramount importance in the treatment, whether it be medical or surgical.

PROPHYLAXIS IN NOSE AND THROAT DISEASES.

Dr. J. Homer Coulter, of Chicago, read a paper on this subject. He said that there are many preventable pathological conditions in the nose and throat, and that many of the ordinary diseases of this portion of the anatomy have evoluted into more serious and distinctly different affections will be admitted without question.

Surgery does not cure all conditions, nor does it even prove always a prophylactic blessing. So, also, do local applications and constitutional treatment prove unavailing if universally depended upon. This is due in a measure to the lack of carefully exacting and eliminating diagnosis. With the development of our knowledge of the physiology of the nose and throat have come also new ideas of the connection

between many diseases of those organs and of their relative etiological importance. The impairment of ventilation and drainage is a most important factor, and one usually amenable to surgical treatment. "Taking cold" is not only a most frequent condition, but one of the most susceptible to prophylactic measures. Clothing of the entire body is a factor of paramount importance in prophylaxis. Too much clothing about the head and neck is just as disastrous as insufficient protection. Adenoids, polypi, spurs, exostoses, deviations, deflections and sensitive areas are each amenable to surgical treatment and demand such interference as soon as recognized. Per contra, too much surgery is quite as disastrous as too much conservatism. The tonsils are the cause of other and reflex pathological conditions as frequently as are adenoids. Mouth-breathing should be recognized as a most significant danger signal.

Conclusions: Anything which produces an alteration in the normal physiological metabolism of the mucous membrane of the nose and throat; any alteration in the nutrition of the parts; any abnormal variation in functional activity; any considerable change in the histological anatomy are each and all remediable surgically or otherwise, and are therefore amenable to prophylactic efforts.

Dr. J. A. Stucky, of Lexington, followed with a paper entitled

PERITONSILLITIS OR QUINSY; CAUSE AND TREATMENT.

Of ten authors consulted, seven, after citing hereditary predisposition, exposure, etc., mention rheumatism and gout as the most prolific causes of this malady. Close observation and careful testing in selected cases convince him that the rheumatic, or more probably the uric acid diathesis, has more to do with the causation of this disease than any other factor.

Coming to the treatment, he believes if the majority of cases of quinsy are seen within forty-eight hours after the first onset of the disease, they can be aborted to such an extent that suppuration will not take place. In cases that progress to suppuration, he strongly advocates early and free puncture, just as soon as there is marked distention, in order to relieve pain and stop the destructive suppurative process. For this purpose he uses a modification of an ear spoon, first described by Spier, and not a knife.

SECOND DAY—MORNING SESSION.

Dr. Thomas Charles Martin, of Cleveland, Ohio, read a paper entitled "Complete Inspection of the Rectum by Means of Newer Mechanical Appliances."

Dr. John L. Jelks, of Memphis, Tenn., contributed a paper on "The Relation Between the Genito-urinary Tract and Rectum in Operations Upon the Female. Which Should Receive Priority?"

The author champions the assertion that the gynecologist should be as well prepared to remove hemorrhoids and treat an ulcerated rectum as to dissect a cicatrix from the cervix or repair a perineum. The rectal surgeon often finds that although the rectum is involved to such an extent as to be chiefly complained of, the chief source of danger to the patient is a pus tube or some other disease. In other words, to relieve the patient and restore her to health and happiness, he must also dissect from the cervix uteri a cicatrix and repair a lacerated perineum. In another case he may be required to sever an urethral stricture.

Dr. William B. Burns, of Deckerville, Ark., read a paper entitled "Rectal Fistula in the Causation of Ischio-rectal Abscess," in which he reported a case containing two large pus pockets. He opened the abscess, emptied its cavity, and subsequently did an operation for the removal of the fistula.

Dr. George D. Kahlo, of Indianapolis, followed with a contribution on "Hydrotherapy in Stomach Diseases."

He said that water is essential to the performance of all physiological functions; yet its importance as a remedial agent is not so generally recognized. While he does not wish to be understood as opposing entirely the use of drugs in diseases of the stomach, he desires to say that he believes water ranks first among therapeutical resources. It may be used internally as a drink, in lavage, as a douche, and as a spray, and externally either applied locally or generally. Its effects, when administered internally, depend upon the conditions of the stomach in respect both to taking of food and whether or not there is normal digestion, as also upon the amount and temperature of the water ingested. Cold applications of all kinds are antiphlogistic, and when prolonged are sedative. They are indicated in acute gastritis, and in the control of vomiting and hematemesis, but to obtain their full effect it is necessary that their local exhibition produce an active hyperemia of the skin. Hot applications are use-

ful in the treatment of gastralgia, hyperesthesia, gastric ulcer and chronic gastritis. While he does not ignore the beneficial influence of such agencies as diet, exercise, massage and electricity, not to speak of a few of the more important drugs which are thus used, and in obstinate cases especially, physicians are not likely to rely wholly upon any one remedy, however valuable. To be successful, hydrotherapy, like all other forms of treatment, has for its governing factors an exact diagnosis, a thorough knowledge of the patient, a full understanding of the causative influence, and a clear conception of the effects of the remedial agent. To this must be added the confidence and co-operation of the patient.

(To be continued.)

OBITUARY.

DR. NEWTON G. TUCKER.

Faithful to his duty until driven to his last bed by an illness which even his resolute will could not withstand, Dr. N. G. Tucker, well-known and beloved by all who knew him, passed away shortly before eight o'clock, January 8, at his home in the city of Nashville, surrounded by his entire family.

For several months past Dr. Tucker has been acting as Superintendent of the City Hospital, and while thus engaged he overtaxed his constitution, already enfeebled by age.

Newton G. Tucker was born in Williamson County, March 29, 1839, and was therefore nearly sixty years of age. At the age of sixteen he secured a position as teacher in the public schools, which he held for three years. He began the stndy of medicine in an office at Lewisburg at the age of twenty, afterwards graduating from the Medical Department of the University of Nashville in 1861. For thirteen years he made his home in Marshall County, where he built up a large and profitable practice. In 1870 he was elected Mayor of Lewisburg, a position which he held until his removal to Nashville three years later. During the yellow fever epidemic in 1878-'79, Dr. Tucker volunteered to meet all incoming trains on the road from Memphis and take charge of all yellow fever patients. This heroic work, for which he would receive no compensation, sets forth the character of the man. Having served for several years as a member of the Nashville

City Council, in 1892 Dr. Tucker was elected city health officer, which position he held for six years.

In his private life Dr. Tucker was generous, honest, a kind father, and a valuable citizen. No one was ever turned away from him, whether it was for professional services or alone sought by the impecunious. Many whom he has helped will learn of their benefactor's death with the deepest sorrow. He passed peacefully away firm in the faith of another life beyond the grave.

EXPERIMENTAL RESEARCHES ON THE EFFECTS OF DIFFERENT ANESTHETICS.

The experiments were conducted by means of Roy's oncometer, by the use of which instrument the condition of the circulation of the kidney can be accurately determined.

The authors conclude that ether causes a special contraction of the renal arterioles, with a consequent damaging effect upon the renal secretory cells, similar to those which follow clamping the renal artery. The kidney shrinks in bulk, there is diminution of secretion, marked albuminuria, and, finally, suppression. These facts would seem to contraindicate the use of ether when renal disease is present and when there is a tendency to pulmonary edema.

Chloroform affects the kidney practically nil. Secretion of urine continues to the last moment of life. Albuminuria is very slight. Meantime, the carotid tracing shows that chloroform is directly depressing to the heart, while ether causes cardiac stimulation throughout.

The A. C. E. mixture shows the special effects of both ether on the kidneys and chloroform on the heart, either being predominant according to the mode of administration. If a large percentage of air is inhaled, the effect is that of chloroform cardiac depression without the effect of ether on the kidney. If, however, less air is admitted, as in ether administration, then the carotid and kidney tracings show both cardiac depression and renal derangement. The authors' observations fail to show any advantage in this mixture of chloroform and ether, but rather the reverse.—Drs. W. H. Thompson and R. C. Kemp in N. Y. Med. Rec., 1898, LIV., No. 10, p. 325.

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ECLAMPSIA.

BY S. S. CROCKETT, M.D.,

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Eclampsia, the name given to the most frequent variety of convulsions in the child-bearing woman, is derived from a Greek word signifying to shine or flash out, and the disease upon which it is conferred is so sudden and unexpected, so terrible in its nature and attended with such serious danger both to mother and child, that it constitutes one of the most formidable diseases with which the obstetrician has to cope.

Puerperal eclampsia is a misnomer, inasmuch as it occurs most frequently during labor; it is next in frequency during pregnancy and least frequent during the puerperium. It is supposed by different authorities to occur once in every 350 to 500 cases.

It is most necessary in diagnosis not to confuse eclampsia with the convulsions of other distinct diseases, as hysteria, epilepsy and various brain lesions. The other conditions causing convulsions in the pregnant woman have their distinctive signs which serve to make the differentiation easy.

The first attack of eclampsia may occur suddenly, but usually there are premonitory symptoms, lasting a few hours or

possibly longer. The most striking of these are severe epigastric pain, headache and disturbance of vision. If these premonitory symptoms be observed in a pregnant woman who is edematous, who has scanty urine containing albumen and casts, convulsions will surely follow unless proper and prompt means be taken to avert the attack.

Occurring in labor, the seizures usually come on during the first stage. If after labor, a great majority of cases occur within the first few hours or days.

While this complication usually presents itself between the seventh and ninth months, cases are recorded in the sixth, fifth and fourth months, and Tissier reports the cases as early as the seventeenth day.

A lengthy discussion of the well-known phenomena of this alarming disease, thirty per cent. of whose victims never recover, is not in keeping with the object and purpose of this paper.

Recall to mind some of the more common clinical forms in which it appears. First, the common form, which is classical eclampsia, is inaugurated by headache, vomiting and eye symptoms. The urine contains copious albumen and tube casts and may turn solid on boiling. The fits are severe and obviously genuine. If labor is successfully ended the patients usually recover completely and have no recurrence in future pregnancies.

Second, the fits may occur suddenly without any warning except perhaps an attack of vomiting. The urine, previously normal, becomes scanty, blood-stained and albuminous after the fits have begun.

Third, sudden coma may occur, with copious albumin and tube casts in the urine, but no other premonitory symptoms. This form of attack usually occurs during the period following labor and is very fatal, coma passing into death without convulsions.

Fourth, some patients have highly albuminous urine and general dropsy to such an extent that the body pits on pressure all over. These patients as a rule do not have fits, are delivered at term and make good recoveries.

When these patients are brought to the post-mortem table the brain in some cases reveals no material changes; in others, great anemia with œdema and flattening of the convolusions, less frequently hyperaemia with occasionally rupture of vessels and apoplectic clots.

In rare cases the kidneys are found absolutely normal, but most usually there are present signs of the kidney of pregnancy, or of parenchematous nephritis. Although kidney lesions are present, one remarkable fact pointed out by Kaltenbach and Virchow is to be noted, viz., that the gravity of the disease is out of all proportion to the kidney lesion found.

Edema of the lungs is frequent; often congestion and apoplexies.

Vinay regards the lesions of the liver as presenting as great importance as those of the kidney. In some cases the liver is completely disorganized and presents the lesions of acute yellow atrophy, while in others it is increased in size. It presents frequently hemorrhagic centers, capillary aneurisms and patches of necrosis.

The efforts upon the parts of investigators to arrive at a satisfactory etiological explanation of this alarming condition—eclampsia—have passed through many and varied stages.

Lever in 1842 first called the attention of the profession to the frequent association of albuminuria and eclampsia, and up to the present time disturbances in the renal function have been regarded the dominating factor in its production. It was inferred from this fact and vigorously contended for by Braun, Frerichs and many other equally eminent authorities that eclamptic patients were in reality victims of Bright's disease, and the convulsions were caused thereby. The accumulation of urea in the blood as a result of this diminution in the eliminating power of the crippled kidney was credited with the mischief, until Claude Bernard by injecting urea into the blood of dogs proved it incapable of producing the convulsions. Frerichs came to the rescue of this theory for awhile with the explanation that while urea itself was innocuous, yet that it was easily decomposed into carbonate of ammonia and in that form was really the cause of the disturbance. He injected carbonate of ammonia into the blood of dogs, producing convulsions, coma and death, and the question seemed settled. Bernard and Fournier, however, questioned the accuracy of these experiments and repeatedly disproved them, maintaining that carbonate of ammonia is present in human blood both in health and disease, and when injected slowly into the blood of the dog did not produce convulsions.

Following the downfall of the urea theory and its carbon-

ate of ammonia amendment, both of which were predicated on the existence of Bright's disease, each and every component part of the urinary excretion was brought forward, the retention of which was supposed to be the cause of the convulsion.

The opponents of the idea of the existence of Bright's disease in this condition led by Seyfert of Prague came forward with objection to the whole uremic theory on the ground:

1. That the convulsions occur without albuminuria.
2. In many fatal cases kidney lesions were either entirely absent or else wholly insignificant.
3. Convulsions were rare in chronic Bright's disease that had existed prior to pregnancy.
4. In true uremia, such as is caused by suppression of urine, as in uterine-cancer or cancer of the ureters, convulsions do not occur.

The close proximity to the truth of these contentions of Serfert has led investigators for the past forty years to a very close study of eclampsia, as related to kidney lesions, with little more conclusive data to be presented and much that remains in utter obscurity.

Modern authorities seem unable to answer the objection of Seyfert, yet are loath to give up the renal origin of the disease. They yield to the point on the non-ezistence of Brights yet assume the existence of a condition of the kidneys peculiar to pregnancy, which is variously called the kidney of pregnancy, or renal insufficiency, characterized by degeneration and fatty infiltration of renal epithelium, with anemia, rather than changes inflammatory in character. It is pointed out that in this condition of the kidney peculiar to pregnancy there is great liability to sudden suppression, just as in true nephritis—that the quantity of urine is liable to be increased, and its specific gravity low—that retinitis is not liable to occur; that it does not usually appear until after the sixth month of gestation; that it disappears, usually, promptly after delivery, and that casts are not present except in bad cases. But the question as to what it is that brings about this kidney of pregnancy which is said to be present in puerperal eclampsia as a detaining factor, yet remains open for a satisfactory answer. It has been suggested that the excreta of the child are added to the blood of the mother already surcharged with an excess of excretory matter incident to the increased metabolism of gestation.

Now, with these facts before us, recall to mind the result of Bouchard's experiments: He showed conclusively that one of the most important functions of excretion was the elimination of certain unknown toxic products of tissue metamorphosis. He has shown that man is constantly menaced by poisoning through his own excreta; that he labors each instant for his own destruction; that this toxæmia is not constantly fatal is obviated by the normal healthy elimination of these agents. The liver is the great consumer of these toxic products, and the skin, lungs, intestines and kidneys are constantly engaged in their removal. This investigator, to whom we owe so much, demonstrated the presence of seven toxic principles in the urine, the chemical and physical properties of which were less in evidence than their physiological. All of these constituents are toxic, some more than others. Four of them are especially interesting in connection with puerperal eclampsia; for instance, he isolated two separate constituents in the urine capable of producing fatal convulsions; one capable of producing fatal narcosis, one producing contraction of the pupil, another producing dissipation of heat. How closely do the effects of these toxic constituents of the urine correspond with the phenomena of eclampsia?

It has been experimentally shown that the toxicity of the urine in eclamptic cases is much reduced; that is, the poisons are not in the urine. It has also been experimentally shown that the toxicity of the blood serum is in the same cases as markedly increased; that is, that the poisons are circulating in the serum.

Recalling to our mind for an instant the parenchematous changes discovered, post-mortem, in the liver and kidney mentioned earlier in this paper, we see accomplished the arrest both of the consumption and elimination of the toxic product.

A retention of these toxic products in the serum beyond their normal proportions is suggested as a possible explanation of the parenchymatous degeneration both in liver and kidney. These toxic products are also credited with producing arterial spasms. In one or both of these ways they may stand in casual relation to the acute suppression of urine so common and so fatal in eclampsia. As to what is the initiative in causing their first retention we know not.

With this view before us, it is readily seen that eclampsia is regarded as only one manifestation of the toxemia in which

the poisons display their poisonous effects upon the nerve centers; that another manifestation of this same toxemia is perhaps the parenchematous changes both in kidney and liver. Both the convulsions and the renal insufficiency, under the toxemia theory, are referred to a common cause, the toxic condition of the serum.

In this connection other phenomena of the pregnant state must be mentioned which may reasonably be referred to toxemia as a cause: The vomiting of toxemia is not infrequently mistaken for the reflex vomiting of pregnancy; indeed, it is a wise precaution to suspect toxemia as a cause in all cases of pernicious vomiting, especially in the latter months of pregnancy. The various neuroses and psychoces of pregnancy not unusually have this toxemia of gestation as a basis of development.

To recognize the presence of this toxemia our minds should no longer be dominated by the presence or absence of albumen and casts in the urine. Rather should there be an effort to detect the absence of the normal urinary constituents and their amount than the presence of abnormal ones. It should be further borne in mind that a kidney may be normal anatomically, yet physiologically insufficient, or it may be seriously impaired, structurally, yet physiologically sufficient.

As nitrogen gas is the one chemical element that predominates in all the urinary excretory products, its proportion in a known daily quantity of urine, voided, may be taken as an exponent of the amount of excretion by the kidney going on in the patient at that time.

With the Doremus apparatus, the amount of nitrogen passed daily is of easy detection, and its variation from the normal at once recognized. Now if the toxemia is not recognized until the serious structural changes in the kidney, resulting in suppression of the urine, have occurred, the time may have passed to afford relief. A close observation and investigation of these patients early may avoid the responsibility of a case of eclampsia later.

Upon inquiry into their subjective sensations, every local pain or physical discomfort should be carefully weighed, especially thirst, lassitude, disturbance of the special senses, sleeplessness or lethargy, irritability or apathy. If there is present constipation, coated tongue, no appetite, nausea, vomiting and a dry skin, defective elimination is probably at the seat of the trouble.

It may not be out of place to again state that the line between the toxemia of pregnancy and albuminuria should be sharply drawn. The albuminuria may be a result of the toxœmia, or may be transient in character and referable to causes entirely unconnected with the pregnant state. In the former case the albuminuria becomes of very serious import as a symptom; in the latter it is a matter of much less moment; in the latter the cases are amenable, usually, to simple treatment. Very different, however, are the cases of toxemia in which the excretion of urinary constituents is deficient, and in which elimination by the skin, intestines and lungs is lacking. These cases may present only slight traces of albuminuria, or none at all, but there is marked diminution in nitrogen waste. These cases require thorough scrutiny, careful examination, prolonged and persistent treatment.

With this larger view of the pathology of eclampsia we have a more rational basis upon which to construct our ideas of treatment, the essential element of which must be elimination. The early recognition of the toxemia before the fits appear is imperative and of easier recognition under this hypothesis. Recalling the supplementary function of the kidney, skin and intestinal canal, diaphoretics, purgatives and diuretics of necessity hold first place in removing the waste matter. Better still, perhaps, is the more radical procedure of venesection, followed by the transfusion of normal saline solution. Chloroform, opium and chloral will perhaps still hold first place in controlling the severity of the convulsive seizures themselves. The place to be assigned veratrum in its unquestioned virtue is, perhaps, alongside of chloroform, chloral and opium, in controlling the convulsive seizures, but perhaps in a different way.

INFANTILE FEEDING.*

BY REGINALD STONESTREET, M.D.,
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MEMBER MIDDLE TENNESSEE MEDICAL ASSOCIATION, MEDICAL SOCIETY STATE OF TENNESSEE, ETC., ETC.

When our Secretary suggested my writing a paper on "Infantile Feeding" I felt like some of you city brothers sometimes do on the subject when yon suggest that the baby be taken to the country.

We all know that a large proportion of sickness and deaths in infants is due to the laity's small knowledge on this subject, and I suppose that we, as physicians, are not as careful as we should be in teaching and impressing generally what the baby should have, how much it ought to have, and how often it should be repeated.

This seems to be a small matter and is overlooked by all of us, more or less, and yet let that baby sicken and what are the first questions we will ask: What has the baby had to eat? in what quantity? and how often? etc.

In bringing this subject before you, gentlemen, I do not propose to bore you to death by a long list of analyses of foods and milks. This would be all right as far as they went, and if you want that sort of data go to the latest text-books for it and save me the trouble of copying.

Our first duty, it seems to me, is to know when a baby is thriving on its food, and what is more important, when to recognize nature's signals that all is not as it should be. These signs are few, but pronounced, and as the little fellow can't talk, with the help of a few references let me interpret them for you.

1. Temperature during the first week. If all goes well this is normal, otherwise "inanition fever" may set in. This sometimes reaches 103° to 106° Fahr., with no other obvious symptoms present but starvation.

2. There is no gain in weight. I won't go so far as some and recommend the constant use of the scales, but it iswell to

*Read before the Middle Tennessee Medical Association, Nashville, November 19, 1898.

weigh the child occasionally and see that it is gaining steadily.

3. The sleep is irregular and disturbed. A healthy infant, after satisfying its appetite, should sleep quietly for a couple of hours; or if not sleeping lay quiet. If, after being nursed, it should wake in a few minutes, crying, etc., the probability is the food is not right.

4. There is frequent fretfulness and crying, caused in a large majority of cases by either insufficient or improper food.

5. The stools are irregular and of an unhealthy appearance. Constipation may be present, or you may have diarrhoea—green actions and stools containing undigested casein and even mucous.

6. The child nurses a long time before being satisfied. Scanty milk will cause the child to nurse for an hour at a time, when with a full supply ten minutes should be ample time.

7. The symptoms during later months are stationary weight, gradual loss, soft, flabby muscles, inability to sit or stand alone at proper age, delayed closure of fontanel, delayed dentition, etc.

The subject of infantile feeding should properly be divided into two classes—breast fed and bottle fed babies. True, we have a mixture of the two, when the mother's milk is augmented by the bottle.

The first, while troublesome at times, is not near the problem the latter is. Here in Tennessee we have not the conditions of crowding and starvation that in the East and large cities of Europe render so many mothers unfit for lactation. Of course, we run across isolated cases where the milk is too poor to be of service to the child; but my experience has been that when the mother's milk disagreed with the baby it was due to there being a too large proportion of proteids or albuminoids, and in such event, of course, we have overfeeding, a more baneful subject and one more frequently met with.

Before I go one step further let me cry out against the almost universal practice I find of giving the baby on its first two days of life (before the milk comes) teas of all sorts, sugar teats and even fat meat. It does seem to me that God in His wisdom would have provided for that child, and He has. The baby should be put to the breast every six hours during

the first twenty-four hours, and every four hours the next day. It will draw about four to six ounces a day which, with the addition of a little fresh warm water, is enough for its own good. Did it require more, we may be sure nature would not have been so late with her supply. Holt says that considering how great are the changes taking place during these first days in the circulatory and respiratory systems, we are hardly surprised that two days pass before the organs of digestion are given work to do.

I was talking of overfeeding. The fault enters in a majority of "breast fed" cases by the mothers not knowing that the child should be fed only at stated intervals, and that their milk, if drawn too frequently, usually contains an excess of solids, making it more difficult to digest, and that while the breast acts as a panacea at the time, it really makes matters worse by the mothers mistaking the child's crying for hunger when probably it is thirst. I always insist that all babies, whether "breast" or "bottle fed," should have a liberal amount of pure, cool, fresh water at frequent intervals. In fact, I tell my people if they want a good, fat baby give it water from the start. Take a little fellow of three or four months that may have been crying for weeks and had insufficient sleep for all of its life, its bowels running off—may be green stools containing undigested casein and mucous. Your pepsins and your bismuths, your antiseptics, etc., etc., are going to do but little good. Stop that feeding! Give a calomel purge, follow with plenty of cool, fresh water, and then direct how often the child shall have the breast—say once every three hours for a child three months old, and it will get well with little or no further trouble. My friend, the "Old Warhorse from Tullahoma," right along here made a useful suggestion at a meeting of this society, and that was to dilute the mother's milk. He did this by allowing the baby to have as much water as it could drink before giving the breast.

From what I have said it would appear that it is essential for the well being of the baby that it should have plenty of good breast milk and fresh water, and that only at certain intervals. Efforts have been made to get at how much a baby should have. Go to your text-books, the accounts are interesting, sufficient for me to say that when the baby is ailing look well into this subject and less into the medicine bottle.

We have "bottle fed" babies, too many of them I am sorry to say. Some mothers absolutely refuse to nurse their ba-

bies for selfish reasons; some are physically unable to undertake lactation; and we have various other reasons that force the little fellow to the bottle.

Emmet Holt says that there are several fundamental principles which must be constantly borne in mind:

1. The food must contain the same constituents as woman's milk, viz., fats, proteids, carbo-hydrates, inorganic salts and water.

2. These constituents must be present in about the same proportion as in good woman's milk.

3. As nearly as possible the different constituents should resemble those of woman's milk, both in their chemical composition and in their behavior to the digestive fluids.

4. The addition to the food of very young infants of substances not present in woman's milk, i.e., starch, is unnecessary, contrary to the best physiology, and if used in any considerable quantity may be positively harmful.

I mention these principles, for I believe they should be indelibly fixed in all our minds. Personally, I have tried several of the many muchly advertised baby foods with, I suppose, the same ratio of success and failure that you all have had. Being able to obtain good fresh cow's milk I now rely altogether on it, modifying to suit each case. I usually have prepared at one time the entire amount of food required for the day, and this is what is put up:

Milk, 1 pint.
Cream, ½ pint.
Water, 1½ pints.
Milk sugar, 6 tablespoonfuls.

Dissolve the milk sugar in the water at boiling point, then add your milk and cream, and it is always advisable to add lime water or bicarb. of soda. Have this cooled right off on ice or in the cellar (milk house), and then before feeding warm enough for one nursing by standing the bottle in hot water. You will find the little fellow will stand your milk, sugar and fat (cream) all right, but it may be necessary to lessen the proteids and cut them down as low as one-fourth of one per cent., while here you are giving as much as two per cent. I don't believe in adding barley water, oatmeal or arrow root, for I don't find they add to milk at all, and don't affect the casein as popularly believed. I prefer plain water.

As to milk sterilization, pasteurizing milk, etc., I want to say I fully endorse them when practicable, and to say fur-

ther that if a fellow once read the appalling accounts of Sedgewick and Batchelder of Boston, as to milk contamination he would hardly know where to stop. They show that ordinary milk examined a few hours after it was drawn from the cow containing 69,143 germs of bacteria in every c.c. or fifteen minims, and that milk sold from wagons in the spring of the year contained 2,355,500. Of course, a great proportion of these germs are harmless, but with them others are often found which hasten fermentation changes and greatly interfere with its digestibility.

In my practice, which is rural, I find that milk prepared as directed above, with every stress laid down on absolute cleanliness in all of its details, is quite sufficient. Were I in the city I would certainly go to sterilization and pasteurizing, etc.

Occasionally I run across a baby that raw milk disagrees with, and then I direct that it be heated for a comparatively long time at near the boiling point.

Milk just from the cow need never be boiled. A temperature of 212° Fahr. is only necessary when milk is to be kept for a long time, or when you believe it to be very impure.

Of course, in sickness we all use peptonized milk, more or less. I have had no experience with condensed milk, koumyss, matzoon, junket, curds, whey, etc.

Now as to quantity and frequency of feeding. I generally instruct that a baby, up to the end of the third month, should have about two to four ounces at a feeding every two hours during the day and less at night, and then to gradually increase quantity of food and lessen number of feedings until a year old baby will be taking, say eight to ten ounces of food five times daily.

Before I close let me impress on you that every baby is a law unto itself and that we cannot treat them all alike. What I mean to say is that the general principle is to begin with something that the child can take and assimilate, and then just as soon as possible get to the standard of woman's milk ingredients. We must often begin by doing what we can, not what we would like to do.

I have tried to tell you what ought to be given to a baby. Of course, in sickness many modifications are called for, and we must all use our judgment. I believe that the best results are obtained by careful dieting with mighty little medicine, and yet with all our care and instructions we must expect to meet cases like I had a day or two ago and found, on

my second visit to 14-month-old baby suffering with enteric colitis, the little one with a banana in one hand and a good sized chicken dumpling in the other.

PARTURITION AMONG THE INDIANS.

BY C. BAILEY BELL, M.D., VINITA, I. T.

There is, I believe, a pretty general mistake among the physicians of the States as regards the ease with which Indian women give birth to children. In fact, our text-books are misleading—undoubtedly caused by former conditions of Indian women in the parturient state. Before the Indians adopted the dress and customs of civilization, which was many years ago in the Cherokee Nation, the percentage of complicated labors was less than now. Just what the percentage was and the kind of trouble oftenest occurring at that time, we have no reliable means of knowing. Reports given out by Indian agents have not been thoroughly reliable or always just to the Indian. Comparing notes with Doctors Fortner and Bagby, who have done the largest practice in the Territory for years, I find that parturition is accompanied by complications oftener with Indian women than their white neighbors. We find no uncivilized Indians, or comparatively few, in the Five Civilized Tribes.

The women imitated the whites in the matter of modern dress and habits so thoroughly that they have fallen heir early to those diseases that we have known for years to follow the modern woman's fashion of dress. That the Indian woman is more liable to complications, I can only give as a reason that her adoption of the modern dress, customs, habits, etc., of her white sisters has not been so gradual and they do not bear the fashions as favorably as those who for generations have followed each succeeding style. This much civilization has given to the Indian a heritage not to be desired.

AFTER COLLEGE, WHAT?—A MEDICAL MISSIONARY.

By a medical missionary I mean one who takes the fruits of Christianity and thus seeks to plant its roots. Dr. William Parker used to say that "Medical Missions are clinical Christianity." To the heathen abroad, as well as to the godless at home, the most convincing proof of the love of God is that it begets love to man. The late Professor of Medicine in Oxford University said last year about medical missions, "That any religion to be true must be such as would appeal to all men of every race and in any period of its evolution," and that the religion of Jesus exemplified in the work of the medical missions did this pre-eminently. It is not merely an enterprise to provide these needy lands with the inestimable benefits of Western medicine. Its purpose is not merely educative; nor is it a temporal bribe for a spiritual blessing. The purpose of medical missions is to win men to Jesus Christ by the use of methods precisely comparable to those used by Christ when on earth, as the Succorer of men's bodies, as well as the Divine Savior of souls. Think of the need of such work.

The ignorance prevailing would be ludicrous if it were not so serious. The first thing an embryonic Chinese medical student does is to commit to memory the 300 places in the body where skewers may be driven through with safety. Some of these so-called safe places are through the abdomen and lungs! Suppuration is treated by dabs of tar-plaster. A favorite remedy for anemia is a jelly made from the bones of a man recently killed. A criminal execution is largely attended by practitioners to obtain this valuable ingredient! Ophthalmia is still treated in some parts of China with a lotion of boiled monkeys' feet, pork and alcohol. In Korea the bones of a tiger are considered a specific for cowardice. A strong tiger bone soup will made a hero of the most arrant coward. They argue thus: the tiger is very strong; his bones are the strongest part of him; therefore, a soup of his bones will be pre-eminently strengthening. Superstition is paramount. In China charms are worn to expel evil spirits; gongs are beaten and firecrackers ignited. Imagine the state of mind of one sick unto death surrounded by a crowd who

are vieing with each other as to how much noise they can make to frighten away the demon causing the illness. Cruelty is practiced. In Arabia, an ingenious expedient for relieving a patient is to burn holes with red-hot irons "to let the disease out." Dr. Hall gives an account of a visit to a child by a Korean physician who first made some pyramids of brown powder and set them on the chest and ignited them until the skin became raw. Then he thrust a long needle through each foot and the palms of the little hands and into the thumb joints and through the baby lips. Imagine if you can the agonizing screams of the child while this barbarous and useless treatment was being practiced.

If we would seek to measure the influence of Christianity, we must look at and compare the treatment of the sick before Christ came and where to-day He is not known, with that of countries where His influence has been felt. It is only on the banks of the great stream, which issues from the throne of God, where grows the tree whose leaves are for the healing of the nations. There is a need of God to-day. He is manifest no longer on earth as man, but His command still operates: "Go—heal—preach." The hands of Christ are no longer laid on the fevered brow; it is for us to calm that raging fever. His touch no longer gives sight. He has commissioned us to do that with our cataract needle. Never before have men come out of medical schools with such an equipment of power as to-day. The discovery of chloroform, the enunciation of antiseptic principles, have not only widened our scope, but have permitted entrance into surgical fields unthought of even sixty years ago. The advances in bacteriology, the production of antitoxins, place within our reach new agents for treatment of some of the most terrible scourges of every land.

What are we going to do? Stay at home, where there is a physician to every 625 people, or go to heathen lands where there is but one medical missionary to two and one-half million people? It does not represent the need to say that heathendom is 4,000 times needier. Here at home we have, in addition, our great nursing institutions, our convalescent homes, homes for incurables and for the dying. We have, moreover, knowledge of the laws of health and sanitation. Shall we stay here and spend perhaps a fourth of our time in relieving discomforts from overeating, or go yonder and break the Bread of Life? Shall we have a reputation of being

Christian physicians in a Christian land, or shall we let our little light shine where the Light of Life has never shone?

Accountability is equal to capacity. Is not our training in the school of sympathy, our knowledge of the controlling factors of disease a call to us to lay this talent from God where it will count most for God? This is the cruse of exceeding precious ointment intrusted to us. Shall we joyfully lavish this, our most costly gift, upon our Lord? A silver dollar, a medical diploma, a life of esteem, and moderate comfort at home, these may loom so large in our vision as to shut out the face of Jesus as he bends in compassion over the untended suffering of a world in shadow, and turns to us with that piercing look and says: "Inasmuch . . . inasmuch . . . as ye did it not . . . ye did it not to me."—J. Rutter Williamson, M.D., in The Intercollegian.

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Alumni Association, Medical Dept., University of Nashville.

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EDITORIAL.

STATE CONTROL OF THE PUBLIC HEALTH.

There can be no argument of weight offered against the State assuming the responsibility of caring for the health of its citizens and making such laws as will best protect the general public against disease.

The statute books of the Commonwealth have spread upon their pages enactments to protect its citizens from violence, to secure to them the quiet enjoyment of their possessions, to enable them to live in liberty and at peace; to advance their material and spiritual welfare. But these laws are far from perfect, hence the attention of a large body of legislators is necessary, from time to time, to improve them, and by these improvements make them apply to the ever changing environment of our progressive civilization.

Education is everywhere recognized as the force by which our modern world has reached its present elevated plane.

The country's law-givers and wise men, alive to this great fact, have done everything in their power to encourage education. Public schools have been established, literary colleges endorsed, and non-attendance at school has been legislated into a misdemeanor. These educational institutions are under the supervision of the State.

Medical schools do not come under this head. It is true in a few States medical education is under State supervision, and in many it is controlled by Examining Boards, while in some it is hampered by adverse legal enactments.

The mastery of both surgery and medicine depends upon an accurate knowledge of human anatomy, which can only be obtained through dissection of the human body.

Whenever a State Legislature makes it a felony to rob a grave, without providing a legal way by which dissecting material may be procured, then and at that time the State deals a serious blow to medical education, and indirectly to the physical well being of her citizens.

Sound medical education is of more value to a community than is any Health Board, and God save us from a Health Board that has not at its head a thoroughly educated physician. If it is the duty of the State to protect her citizens against the assaults of an enemy, the inroads of smallpox or yellow fever, it is equally her duty to protect them, when sick, from the dire results of fraud or ignorance at the hands of legalized practitioners of medicine.

Lawmaking in regard to anything so sacred as human life is a serious business to a man who possesses a conscience. The sin of omission is little less than that of commission, and the legislator who helps to enact a law by which an uneducated man is permitted to go forth, and in his conceited ignorance do unto death a sick, unsuspecting victim, is equally guilty with him who commits the deed. All that prevents this crime from being classed with murder is the lack of intention. Ignorance is not a valid excuse before the law, yet legislators make it so when by these enactments it is possible for an unqualified man to hold a position in

which he gambles with human life. Strange to say, politicians do not think of the responsibilities when they appoint such an one to the charge of these sacred trusts. What pangs they will suffer when their consciences are called upon for their balance sheets!

In the interests of the citizens medical education should not only be fostered, but it should be regulated by the State. Diploma mills have existed and do now exist in this country, to the great injury of sound medical teaching. Supervision and careful inspection is healthy in both public and private institutions. It never does harm.

The public welfare demands educated doctors, and it is clearly the State's business to know beyond a doubt that the holder of a license to practice medicine is qualified to do so. The system of examining applicants by a Board of Regents, as practiced in many States, is efficient. The Examining Board in our own State of Tennessee has done good service since its establishment, and we trust it may be long continued, to do such work in the future.

In the interests of medical education our legislators should make such provisions as would place at the disposal of the various medical colleges in the State, for the purposes of dissection, the bodies of all friendless paupers who may die in the State institutions for charity.

Our readers are asked to consider this subject carefully and use their personal influence with their representatives at the State Capitol to secure and these necessary enactments.

THE ALUMNI ASSOCIATION.

This organization has been a very valuable one in past years, and with the energetic work which is being done by the present officers, the BULLETIN feels assured that its usefulness and influence will continue to increase. Every graduate of the Medical Department of the University of Nashville should remember both the profit and the recreation to

be obtained by a visit to Nashville at this time. A pleasant, spring-time journey, and the hearty friends and associates of old college days to be met at its destination, leave no need for other rewards. The graduation night itself should form a scene full of interest for those who once stood where now they may observe others—at the threshhold of a career, with all the aspirations, the hopes, the energies which have enabled their predecessors and will enable them to become men of mark and worth. Those visitors, interested spectators of a scene which is a resurrection of their own youth, eye-witnesses of the magnificent work done by their Alma Mater, breathing deep the atmosphere of inspiration which surrounds her walls, cannot fail to return to their labors with renewed vigor and an added sense of dignity and pride in the institution in which they so long have felt a filial interest.

In his capacity as a physician, moreover, shall each attendant at the meeting receive complete compensation for his coming. Valuable essays will be presented and will provoke still more valuable discussions, so that all will depart with a richer and fresher store of knowledge, most useful because well in hand.

Do they seek honor, reputation? The prizes offered for essays for this meeting by the BULLETIN will stimulate a competition which will yield both in no stinted measure to the victor.

Let each Alumnus, therefore, consider well all that may be gained by attendance at this meeting—recreation, instruction, reputation—then decide that he, too, will participate. Let him, moreover, be not selfish in his decision, but at the same time prepare to contribute to the pleasure and profit of his colleagues by presenting the best fruit of his own labors.

We append the circular letter issued recently by the Secretary:

NASHVILLE, TENN., February, 1899.

Dear Doctor:

I beg to inform you that the annual meeting of the Alumni Association of the Medical Department of the University

of Nashville will be held on the 30th day of March next. The school commencement will be on the day following. We are anxious to make this a banner meeting, and desire to see with us as many of the graduates as possible.

The marked increase in attendance during the past three years can be attributed to two causes—the loyalty of the Alumni, who are ever watchful of the University's best interests, and to the thorough course given by the Faculty. THE MEDICAL AND SURGICAL BULLETIN of the Alumni Association has offered three prizes for the coming meeting. Every Alumnus who has at heart the welfare of his Alma Mater should make an effort to aid in the success of this occasion. Won't you come and present a paper? Send the title as soon as possible to the Secretary.

Very truly, W. G. FRIERSON, Secretary.

DR. BAILEY BELL.

In this issue of the BULLETIN will be found an article from Dr. Bailey Bell, of Vinita, Indian Territory. The doctor gives us some valuable information about child bearing among the Indians. The facts detailed are not quite in accord with the ideas generally held of the ease with which Indian women give birth to their children. We are all familiar with the description of Indian women, on the march with the tribe, stopping for a day, having their babe and again joining in with the march. These cases have been observed too often and by too many observers to be exceptions. There can be no doubt the primative human mother experienced few difficulties during labor. Dr. Bell attributes the deplaced and accidents that now occur in child-birth to the changes in the social habits of the mothers. No doubt he is correct in this explanation. Further studies upon this subject would prove of value to the medical profession. We hope Dr. Bell will continue them.

AUSTIN, TEXAS, February 14, 1899.

Prof. M. C. McGannon, M.D.:

DEAR SIR—The January issue of the MEDICAL AND SURGICAL BULLETIN came duly and was read with much interest. Your editorial was especially good and to the point. I am glad you so emphatically endorsed the idea that it pays, yes, in gold coin, to have special knowledge and extraordinary skill, so thoroughly mastered as to enable its possessor to apply it on all proper occasions, in all the various and diverse avocations of life.

Yes, dear doctor, tell the students it will surely pay them to acquire extra skill, though years of patient, diligent toil be the price of a higer degree of qualification. There is no royal road to such achievement. The patient, steady, diligent, tireless plodder will surely "get there" on both of his reliable feet.

Our people away out here in the boundless wilds of Texas are doing a great work. Our university grows apace, and our head science is bringing honor to our Empire State. When you travel among our Western and Pacific Coast people you will be delighted with their cosmopolitan spirit and boundless hospitality. Nothing small here. A hundred miles will not take you far.

The alumni of our university are reaping honors at the great institutions in distant lands and States and fast filling our Legislative halls.

Yes, my friend, it pays to have great institutions of learning, as my native State, Tennessee, well knows, and the greatness of whose grandeur my relatives, since 1754, have nobly labored in the building up.

Three cheers for Mr. Lee and the lady orator.

Yours truly, Q. C. SMITH.

PERSONAL—Dr. S. S. Amerson, Class of '97, located at Sullivan, Ky., visited the college recently. He is enjoying a very lucrative practice, and has by honesty and faithful work established himself in the confidence of the people. We were pleased to see him here and glad to learn of his success

SECTION ON MEDICINE.

UNDER CHARGE OF W. L. NICHOL, M.D.,

PROFESSOR OF DISEASES OF THE CHEST, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; AND

E. G. WOOD, M.D., C.M.,

PROFESSOR OF PRACTICE OF MEDICINE AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF THE BRITISH MEDICAL ASSOCIATION, ETC., ETC.

BOLOGNINI'S SYMPTOM IN MEASLES.

A. Koppen (Centralbl. f. inn. Med., July 2, 1898) draws attention to Bolognini's observation in measles that when both hands are placed on the abdomen with the fingers directed downwards, and an alternating and gradually increasing pressure is exercised, a slight rub can be felt as if two uneven surfaces were moving over each other. This was noticed early by Bolognini in 198 out of 200 cases of measles where there were no signs of peritoneal irritation. Bolognini attributes it to a fleeting peritoneal exanthem. Koppen compares the sensation to the crackling felt in subcutaneous emphyema. It could be obtained only when the small intestine was manipulated between the hands. The author has never found it present in healthy children and but rarely in those suffering from intestinal affections. He concludes that the symptom is very frequent in measles, but that it is not pathognomonic, and that it arises from alteration in the intestinal contents.—B. M. Journal, Oct. 29, '98.

GLYCOSURIA CURED IN TWENTY-EIGHT DAYS.

Dr. Michaux (Lyon Medical, Oct. 18) reports the case of a man of fifty-eight, who in eight months had lost fourteen pounds in weight following upon digestive troubles.

Analysis of his urine disclosed six hundred grains of sugar to the quart. No indication was given of the quantity of urine passed in twenty-four hours.

The regimen was left unchanged, but the patient was given (daily?) four granules containing each one one-hun-

dred-and-twentieth of a grain of arsenate of strychnine, a sixtieth of a grain of arsenate of iron, a third of a grain of benzoate of lithia and a sixtieth of a grain of quassine. This treatment was continued without intermission from August 24 to Sept. 21. All the functional troubles have disappeared, as has also every trace of sugar from the urine.—N. Y. Med. Journal.

ANTITOXIN TREATMENT OF PNEUMONIA.

A. H. Smith of New York (Amer. Journ. of the Med. Sci., October, 1898) gives a summary of the investigations into this subject. It is probable that the infection is not maintained through its whole course by the same microbes, but by a constant succession of fresh ones, the local process ceasing to extend when the supply of microbes terminates. Yet the production of an antitoxin would also appear to play a part in bringing about the crisis. Some ten years ago Netter rendered mice and rabbits immune against the pneumonic infection by injecting the fluid obtained from the dried spleen of infected animals. Later he employed with the same result pleuritic exudation containing pneumo-cocci and also pneumonic sputum. Foa immunised animals by means of an attenuated culture of the diplococcus. The brothers Klemperer rendered rabbits immune against this infection, and cured dogs by using the serum of immunised animals. Man, unlike animals, is only slightly susceptible to the pneumococcus infection. The Klemperers injected themselves with the pneumococcus, and found that in small quantity no effect was produced, and with larger quantities only a local swelling appeared with passing febrile symptoms. The disease is grave in man, owing to the absorption of poisons from the local lesion. The immunity against the pneumococcus is only short-lived.

Lara obtained encouraging results in treating 10 cases of pneumonia with serum. Bozzolo also treated 5 cases, with 1 death. De Renzi used the serum in 10 severe cases, and all recovered. Wiesbecker treated 5 cases with serum obtained from convalescents, and always noted a remarkable improvement in the subjective symptoms. Washbourn used in his cases serum from an immunised pony, devising a special method of cultivation so that the microbes maintained their virulence for sixty-six days. Several cases have been treated with Washbourn's serum, with favorable results. Smith

says that the serum treatment encourages to further effort, but that a large number of observations can alone enable one to draw conclusions as to its efficacy. He mentions that efforts are being made by the New York Health Board to supply a reliable antitoxin for the treatment of pneumonia.—British Medical Journal, Oct. 29, '98.

SECTION ON THERAPEUTICS.

UNDER CHARGE OF W. G. EWING, M.D.,

PROFESSOR OF MATERIA MEDICA, THERAPEUTICS AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

RATIONAL ETHERIZATION—A STATISTICAL STUDY.

In the Medical Record of January 29, 1898, Dr. M. B. Brouner writes a paper with this title. He summarizes as a deduction from his experience the following:

1. That etherization should be entrusted only to experienced hands.

2. That a special cone is not necessary for successful etherization. The simpler and less complicated the apparatus the better.

3. That the so-called "force method" of etherization is unnecessary, cruel and oft-times injurious.

4. That vastly better results are obtained by a gradual, quiet administration.

5. That the amount of ether employed should be minimized, preferably given drop by drop, after anesthesia has been fully established.

6. That the evil sequelæ are directly proportionate to the amount of ether employed, and indirectly proportionate to the duration of the anesthesia.

7. That the so-called baneful after effects on bronchi, stomach and kidney are largely overestimated, and in a large degree controllable.

8. That women require a smaller amount of ether, though a longer time to produce anesthesia, than men.

9. That alcoholic subjects require a longer time and a greater amount of ether to produce anesthesia and to maintain it.

DEATHS UNDER ETHER DURING 1897.

During the year 1897 at least fifteen cases of death whilst under the influence of ether were reported in the public press. As this number is greatly in excess of the previous yearly average mortality, we were led to investigate the individual cases. By the courtesy of the several medical attendants we obtained full details of certain cases, and had hoped to be able by sifting the particulars to arrive at some explanation of such a sudden increase in mortality. The several factors of each case, however, proved so various that no trustworthy conclusion could be arrived at. We therefore give the following brief summary of the facts in the hope that they may be useful. The details of ten of the following cases were furnished direct to us; of the remaining five we have no further information than that given at the several coroners' inquests:

Case 1 was of intestinal obstruction, the result of malignant disease. The patient, a man aged fifty-three, was rather collapsed before the administration of the anesthetic, which was given by a Clover's inhaler. He took the anesthetic well, but vomited while manipulation of the intestines was in progress. There was no preliminary retching, and a large amount of vomit entering the trachea, the patient was suffocated. This case emphasizes the necessity of emptying the stomach before operating on collapsed and debilitated subjects.

Case 2 was that of a woman aged thirty-nine, suffering from ruptured tubal gestation, and in a moribund condition.

The details of Cases 3 and 4 will be found respectively in the Sussex Daily News of June 7, 1897, and the South London Mail of April 16, 1897.

Case 5 died under chloroform, and Case 6 will be found in full in the British Medical Journal of January 8, 1898.

Case 7 was that of a female aged twelve. The operation was for the removal of a large suppurating multilocular cyst of the broad ligament weighing about eight pounds. Previous to the operation the patient was in fairly good condition, but had had a more or less elevated temperature for three weeks. The operation lasted thirty minutes, and about five ounces of ether, which was preceded by gas, was used. During the administration the pulse became more and more weak, the pupils kept contracted, and the breathing became somewhat shallow. The patient having been put into bed

and hot bottles, etc., applied, the pulse greatly improved, but the pupils remained contracted, dilating only at the moment of death.

Case 8 was reported in the Echo of October 8, 1897.

Case 9, a woman aged thirty-nine, was submitted to an operation for the removal of a retained placenta after abortion. The condition previous to operation was very bad, temperature 104° and pulse 120. Ether alone was administered by a Rumboll-Birch gas and ether inhaler, and an anesthesia had been attained and preliminary irrigation performed, when the pulse ceased to be felt and respiration stopped. From two to four drachms of ether were used.

Case 10 was one of abdominal section; six ounces of ether were given through a Clover's inhaler.

Case 11 is reported in the Western Daily Press of September 15, 1897.

Case 12 was an operation for relief of strangulated femoral hernia in a man aged thirty-seven. Previous to the operation there was profuse stercoraceous vomiting. Six drachms of ether were administered from a Clover's inhaler. The patient took the anesthetic well at first except for some struggling, but while passing into the stage of complete anesthesia, some vomit was observed to come up into the mouth without straining, and respiration ceased entirely from that moment.

The operation on Case 13, a woman aged sixty, was for removal of the appendages, together with supravaginal hysterectomy. About six ounces of ether were given, preceded by gas. Previous to administration the patient was in an apparently good condition and the heart's action was good. At first there was a good deal of cyanosis, but after this the patient took the anesthetic well till about half an hour before the close of the operation, when the pulse became feeble and the respiration shallow. At the post-mortem advanced fatty degeneration of the heart was found.

Case 14 was reported in the Sussex Daily News of December 14, 1897.

Case 15 was an attempted hysterectomy as a last resource in a case of protracted hemorrhage in a woman of forty-four. —British Medical Journal, May 21, 1898.

THE TREATMENT OF ARTICULAR RHEUMATISM BY HEAT.

Wilms (Deutsche med. Wochenschrift, No. 23, 1898) has

devised a simple apparatus for the continuous application of heat to joints, which in principle resembles Leiter's tubes. Flexible metal tubes are coiled several times round the joint, a thin layer of plaster of paris being first applied to protect the skin. A constant stream of water, at 175° to 195° Fahr., is maintained through the coil by syphon action. In practice the water is used as hot as it can be borne. The writer has had very good results with this method of treatment in cases of chronic articular rheumatism. In gonorrheal rheumatism especially, the cure was completed in a shorter time and with less restriction of movement than with other methods.

LITHIA IN TORTICOLLIS.

In torticollis of rheumatic origin Dr. Baum has found lithium bromid in doses of five grains every two hours, very efficient in many cases. If a decided improvement does not occur in twenty-four hours the drug should be discontinued.

FOR THE REMOVAL OF SUPERFLUOUS HAIR.

The Indian Lancet for September 16th gives the following prescription:

℞ Tincture of iodine	3	parts;
Oil of turpentine	6	"
Castor oil	8	"
Alcohol	48	"
Collodium	100	"

M. Sig.: The affected part is to be painted with this mixture once daily for three or four consecutive days.

When the collodium scab is removed the hairs will be found imbedded on its lower surface.—Putte.

SECTION ON SURGERY.

UNDER CHARGE OF CHARLES BROWER, M.D.,

PROFESSOR OF SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

A MODIFICATION OF LABORDE'S METHOD FOR RESUSCITATION IN DEEP ASPHYXIA.

After practical experience and experimental research Herzog came to the following conclusions:

1. Laborde's method (rythmic tractions on the tongue) is not of value, and should not be applied in asphyxia occurring during the later stage of narcosis.

2. In asphyxia during an earlier stage of narcosis Laborde's method is probably of some value as an auxiliary to other methods of resuscitation, which are more effective.

About a year ago I had occasion to operate in a case which suggested to me a modification of Laborde's method.

The patient was in deep narcosis, and the incision had just been made, when almost simultaneously cessation of respiration and of the heart's action occurred. We made attempts at resuscitation until our strength was almost exhausted. Finally I introduced a swab of gauze into his mouth in order to remove the secretion.

It was then that the idea struck me to induce reflex action by irritation of the epiglottis. This was done in a very simple manner. With the patient's head hanging over the edge of the table, and his jaws separated by means of a gag, I introduced one hand into his mouth and moved the index finger to and fro over the epiglottis. After a short while the patient commenced to swallow, and then breathe, only to stop two minutes later. A second "tickling" of the epiglottis had the same favorable result, which also occurred the third time, whereupon both pulse and respiration remained normal.

A much more powerful effect, however, is directly exercised upon these nerves by energetic irritation of the epiglottis. I therefore consider my method nothing but a modification of Laborde's. But there are more reasons in favor of my modification.

1. I do not consider traction on the tongue as being perfectly free from all danger; at least, I can not imagine why muscle bundles should not be torn in the manipulations. By tickling the epiglottis nothing can be injured.

5. We know by daily experience how anxiously we try to avoid touching the epiglottis in intralaryngeal cocainization. We are afraid of the reflex caused by the least sensation of tickling. Ought we not to learn by this experience?

Therefore, in asphyctic conditions tickling the epiglottis might perhaps be tried as a means of resuscitation.—New York Medical Journal.

THE RADICAL CURE OF REDUCIBLE HERNIA BY KOCHER'S METHOD OF INVAGINATION, WITH LATERAL DISPLACEMENT OF THE NECK OF THE SAC.

The method described in Kocher's Operative Surgery (English translation by Stiles) is fairly well known, and is gaining in popularity; the surgeon who has practiced it will appreciate the advantages of the modification. There was a potential peritoneal sheath or pouch in the displaced neck in the older method, but in the present there is none.

The hernial sac is separated in the usual manner; the free end of the hernial sac is taken hold of by the long curved forceps used in Kocher's operation, and the sac invaginated upon itself into the general peritoneal cavity, carrying the point of the forceps along the anterior abdominal wall until it is nearly opposite the anterior superior iliac spine of the same side. The point of the forceps is now pushed against the abdominal wall and a small incision is made through the abdominal muscles down upon it, then the forceps carrying the hernial sac is pushed outwards, the sac is caught and pulled out through the wound after liberating the herniating forceps. The sac is made quite taut, its neck is secured to the parietal peritoneum and transversalis fascia, and the remainder is cut off. A suture closes the wound in the muscles.

The hernial sac, it will be observed, is turned outside in, and it is its peritoneal lining that is seen at the extrusion through the abdominal muscles.

The same condition is obtained by Macewen by his well-known method of folding the hernia sac upon itself like a fire-cracker: Kocher's method is much simpler, and leaves nothing to give rise to a possible necrosis such as Macewen's

had has been known to do. Kocher's method can be adapted to any hernia with a separable sac, and probably it will in time be the only method for the radical cure of femoral hernia. The essentially new point in its application to an inguinal hernia is the displacement of the neck of the hernial sac internally to the internal abdominal ring, instead of externally to its outer border (older method); the closure of the inguinal canal is the same as formerly, and the dressings of the wound are confined to a strip of gauze kept on by collodion.

Four months ago Mr. Thomas operated upon a large double inguinal hernia by the above method. Sixteen days later the patient walked a quarter of a mile without any external hernia support, and at present the scar is as linear as if the patient had been in bed all the time or had worn a light (useless) truss.—Bristol Medical Journal, December, p. 307.

ANEURYISM IN A BOY.

S. H. Berry, M.B., (Brit. Med. Jour., December 10, p. 1745). A boy, whilst playing, suddenly fell down unconscious. He was at once brought to hospital, but life was extinct. The pericardium was distended with blood cot. Below the line of reflexion from the ascending aorta was a transverse tear in the aorta, and below this was a large fusiform aneuryism, four inches vertically and three inches transversely. At the place of rupture the tunica media was thickened. There were no signs of syphilis and there was no history of rheumatism.

THE CURE OF CERVICAL LYMPHADENITIS WITHOUT SCARS.

Calot (La Tribune Medicale, October 26).—Cervical lymphadenitis terminates more or less rapidly either in resolution or softening. Resolution is not rare. Softening is desirable, for it permits of cure without scar. Before the skin is altered the cold abscess should be punctured with a fine needle and a modifying injection used. Ninety-nine times out of one hundred a complete cure without scar will be obtained.

If after a period of six months, a year, or two years at the seaside the gland remains enlarged and hard, softening should be produced by an injection. The best is a 1 in 50 solution of chloride of zinc. Two or three grammes injected three or

four times at intervals of two days almost constantly produce softening. The treatment is completed by puncture and injections of camphorated naphthol.

A cutting operation is necessary only when ulceration has occurred.

SECTION ON ABDOMINAL SURGERY AND DISEASES OF WOMEN.

UNDER CHARGE OF M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

MOVABLE KIDNEY.

Dr. C. S. Bacon, speaking of the etiology of the disease, says a slight motion is normal, but if the greater part of the organ can be felt it is pathological.

The condition is oftenest found (1) in men; (2) on the right side: (3) between the ages of 20 and 40 years; (4) when in women, among those who have borne children, suffered with tumors or wasting diseases; (5) when there is prolapse of the abdominal organs.

The forces holding the kidneys in place he places under two heads: 1. Intra-abdominal pressure; 2. Ligamentous (peritoneal) attachments.

The disease is thus the result of weakening of one or the other or both of these forces. He summarises its causes as follows:

The attachment may be weakened by pressure from above, as in case of enlarged liver or abnormal accumulation above the diaphragm, or by tight lacing. They may be weakened by traction made by the ureters, colon or deodenum. They may also be dislodged by a blow or jar or other trauma. Gravity is always an important factor, especially in cases of enlargement of the kidney, as in disease, tumor or menstrual congestion. The attachments may also be congenitally weak or they may be weakened by emancipating disease when the fat is absorbed. The intra-abdominal pressure is weakened or destroyed by relaxation of the abdominal walls or injuries to the pelvic floor, one or both of which conditions are often the sequelæ of labor, laparotomy or emaciating disease.—Am. Gyn. and Obst. Journal, Feb., '99.

SYMPTOMS AND DIAGNOSIS OF MOVABLE KIDNEY.

In the same journal, Dr. Gustavie Futterir has written upon the above named topic. He states the symptoms to be: 1. Pain in the back; 2. dizziness; 3. gastric symptoms, indigestion, croups, trauma, vomiting, flatulency; 4. disorders of circulation, palpitation, irregular heart action and destruction of the abdominal aorta throbbing of this vessel, kinking of the renal artery, and in rare cases œdema from compression of the vena cava inferior; 5. nervous symptoms—neurasthenia, trembling, dizziness, headaches, occipital or frontal, and deep depression; 6. urinary symptoms—urination frequent, at times painful, and in some cases albumenuria and hydronephrosis.

Diagnosis is to made by the above symptoms and by feeling the kidney out of its normal situation. The disease is so common that all practitioners should look for it.

THE RELATION OF FUNCTIONAL NEUROSES TO DISEASES OF WOMEN.

In this article hysteria in its most aggravated forms is shown to be often due to disease of the uterus, more especially to those resulting from injuries during child birth.

Reflex neuroses, as for example acnerosacea, eczema, urticoria, etc., occur oftenest at the beginning of menstruation and disappear frequently when the flow becomes well established.

Melancholia and hypochondriasis is another class that occurs usually about the climacteric and disappear in a year or two after its passage.

The anemia and neurotic condition following unlawful gestation often disappears as by magic after marriage to the seducer.

The neuroses of pregnancy need only be mentioned, they are so well known. Cardialgia, temporary tachycardia and cephalalgia are often caused by endometritis. Many of these same neuroses in unmarried women disappear after marriage.

Auditory and optic derangements, mental depression, spina symptoms, migraine, neurasthenia, dyspepsias and indefinitel pains in the abdomen, goitre and hemicrania often have as their cause ovarian prolapse or ovarian disease, laceration of the cervix, prolapse of the uterus, or some other diseased condition of the pelvic structures.

The treatment of these cases often proves the diagnosis

only after months of persistant effort. Special local treatment alone may fail. It should be combined with efforts to improve the general health.

Surgery in properly selected cases and when properly applied is of great benefit. The operation of removal of the ovaries for functional neuroses is a serious matter, and its performance in the past has produced more harm than good.—Dr. H. J. Boldt in the N. Y. Med. Journal.

SECTION ON NEUROLOGY.

UNDER CHARGE OF T. L. MADDIN, M.D.,

PROFESSOR OF NERVOUS DISEASES AND GENERAL PATHOLOGY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF AMERICAN MEDICAL ASSOCIATION, ETC., ETC.

THE PATHOLOGY OF THE PINEAL GLAND.

If the proverb, "Happy is the nation that has no history," be true for other organizations in general, then the pineal body ought to be regarded as a most fortunate organ. That it has had a history and a most curious one we have abundant proof, but that was long ago in the "age of reptiles" to which the memory of man runneth back or reverteth only under the influence of strong drink, and for the last quarter of a million years at least it has absolutely ceased to have a physiology or even a pathology. It lies among the brain tissues as inert and almost as irresponsive to the forces about it as a fossil in the chalk beds. That it can so continue to exist generation after generation is proof either of services of extraordinary value rendered in the past, or some as yet unsuspected function in the present.

Comparative morphology assures us that it was once a median or "vertical" eye, which still exists in some nearly extinct lizzards (Hatteria), and possibly at even a remoter period the opening of the primitive mouth, of which its interesting relative, the pituitary body, was the gullet. That it originally reached the roof of the cranium is, of course, certain, having been pushed down into its present central position by the huge development and backward growth of the originally anterior cerebral hemispheres, which now cover, in our

own species, even the cerebellum or "hindmost brain." But, unfortunately, these facts give us no clue whatever to its possible role in the body economy, for it obviously cannot now function in any way as either an eye or a mouth, or anything connected with either.

Nor is there any help to be had from a study of its histology. According to the latest researches (Ogle, Lord) it consists of a dense connective tissue capsule from which fibers pass into the interior and form a loose reticulum for the body. In the meshes of this network are lodged rounded and oval nucleated cells, whose protoplasm shows a tendency to become either colloid or amyloid, and by fusing with that of other cells gives rise to the *corpora amilaceae*, or "starch-grain" concentric-layered bodies. In the fibers of the stroma are found the calcareous particles known as "brain-sand." Nothing that can be clearly identified as nervous tissue remains, although there are a few large columnar cells resembling the "rods" of the retina. Like its now celebrated congener, the pituitary body, it was originally a hollow organ and occasionally traces of the central cavity are yet found.

On account of its central position and the way in which it is wrapped up in the choroid plexus, any attempt to remove it in animals must be attended by such serious injury to the brain and its internal circulation as to give little hope of any reliable results from experiments in that direction.

Its pathology seems almost equally characterless. It may perhaps be said to possess the usual tendency of all vestiges to give rise to tumor formation, for considering its small size and sheltered position, a relatively large number of new growths have been reported. The commonest of these, however, are simple cysts formed by dilitation of the central cavity, then comes sarcomata, then gummata, and the only form that is at all characteristic of the gland is the psammoma, or concentrically-layered tumor, with or without calcareous deposits.

Worse yet, with the possible exception to be mentioned later, none of these tumors have given rise to any recognizable symptoms whatever pointing to any disturbance of the brain or glandular function, other than that due to the pressure of the growth upon surrounding tissues.

A recent meeting of the Pathological Society at London was devoted entirely to the pathology of this gland, and fourteen cases were reported by the members present, specimens

being shown from ten of them. Seven were cysts, four sarcomata, one gummatous enlargement and one calcareous deposit. One of the cysts was interesting from the fact that its inner surface was lined with cells containing large amounts of pigment, in the very situation where the choroid coat lay in the ancestral eye, and curiously enough, several of the sarcomata were pigmented ones.

After the reports of the cases were all in, the president called for remarks upon the general subject, but the absolute silence which followed was eloquent of the state of our knowledge of the gland even to-day. In all the cases reported there was only one symptom which was in any way peculiar or was common to more than two of them, and that was prolonged drowsiness, which was present in four. This was of long duration, lasting in one case for three months, and was of unusual character, as it never approached coma and the patient could be readily roused at any time, or would even answer questions without apparently awakening. As Dr. Ogle, who reported six out of the fourteen cases pointed out, this was most probably due to pressure upon the choroid plexus and interference with the circulation of the ventricles; but it is an interesting coincidence that Dr. Patrick, Mason has reported the pineal body as found greatly enlarged in two cases of the singular African "sleeping sickness." The drowsiness of this disease is precisely of this peculiar, easily-roused and chromatic character, lasting for months and gradually deepening into asthenia, unconsciousness, convulsions and death. As there are two advanced cases of this disease in the Seamen's Hospital at the Albert Docks at present, the cranial results of the autopsies will be awaited with much interest.—The Journal, December 31, 1898.

SECTION ON MEDICAL CHEMISTRY.

UNDER CHARGE OF J. M. KING, B.S., M.D.,

PROFESSOR OF CHEMISTRY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; CHEMIST TO STATE OF TENNESSEE.

TOXICOLOGIC RELATIONS OF THE PTOMAINS.

The discovery, in 1879, by Selm, of the first of the post-mortem alkaloids revolutionized the medico-legal operations of the chemist. It made the process of detecting vegetable alkaloids a matter of so great delicacy that, for a time, it was thought it would henceforth be impossible to prove poisoning from vegetable alkaloids by means of toxicological investigations. Such an assertion was an exaggeration; the toxicologist who would feel himself at a loss in the presence of ptomains would be altogether incompetent. In fact, no special or very characteristic chemic reaction, as yet, enables us to distinguish the ptomains from the alkaloids; nor is this in any way surprising, as it would be quite illogic to wish to establish between the two orders of alkaloids a difference which nothing can possibly justify, and which reminds us of the distinctions that were insisted on formerly as existing between the two kingdoms, animal and vegetable. The processes of decomposition, splitting up or synthesis, which determine the formation of ptomains are very certainly of the same order as those by virtue of which the vegetable cells fabricate quinine or strychnia.

A certain number of alkaloids most frequently met with in the organism have been equally often met with in vegetables —adenin and exanthin in tea leaves, for instance—and M. Pouchet states that there is little doubt on his part that at no distant date a continued alkaloid series will be found passing from the simplest ptomains, as hydropyretic bases on to the most complex vegetable alkaloids. It is only by chemic reaction and physiologic experimentation taken together that we are enabled to succeed in identifiying the alkaloids obtained toxicologically with any particular vegetable alkaloid. No indication, however subtle, should be neglected in the double series of investigations. It was in consequence of attention to this that, in the celebrated process of General Gibboni, Selmi succeeded in proving the innocence of the in-

criminated by establishing the fact that the alkaloid obtained from Viscera subjected to medico-legal examination, and which experts alleged was Delphinium, on a chemic reaction alone, in reality consisted of a ptomain which arrested the heart's action at systole instead of at diastole as in the characteristic action of the Delphinium alkaloid.

The putrefactive coniain of Lieberman is distinguishable from the true coniain in that it is neither volatile nor toxic. It would be easy to multiply examples of that kind. Physiologic experimentation made also comparatively with the isolated products of viscera, and the alkaloids with which the chemic reactions obtained anteriorly seem to justify us, in fact, of disposing of any doubts. We ought, consequently, to obtain, under the same experimental conditions, results absolutely identic. The methods of physiologic experimentation known up to the present time are sufficiently delicate and exact to enable us to prove or disprove to a certainty deductions based on chemic analyses alone. We must of necessity hold that there never can be complete evidence of identity supplied by comparative chemic and physiologic examination of two alkaloids, unless they be constituted of one and the same substance. This is a fact of experiment which does not admit of dispute.—The Scalpel, October.

THE MECHANISM OF MAN—ITS EGO AND COSMOS.

Chemistry attempts to describe all material substances, to tell of their ultimate particles, and formulate the laws which govern their combinations and decompositions, but does not assume to create or annihilate the molecule with which it deals or the atom with which it fondles. This is in obedience to the inevitable and immutable law of the indestructibility of matter and force. Matter is tangible; force is intangible. Matter is found in states; force is responsible for the state. Matter is also found in kingdoms; force is again ruling it. The one is made to grow from within by the complicated power of nutrition; the other to increase from without by the simpler but tardier function of accretion.

The organic and inorganic comprise everything that occupies space. Animals and vegetables are the organic, and all else is inorganic. Vegetables feed upon the inorganic, and animals are fed upon vegetables, thus the vegetable becomes the connecting link between the animal and inorganic king-

doms. Animals also feed upon each other and thus become omnivorous.

Animals and vegetables have many characteristics in common, from the standpoint of nutrition. The vegetable takes the mineral from the earth and sea and sky and elaborates it into an organic compound, and from this the animal is fed and his body reconstructed. This is accomplished by force, of which we understand but the phenomena of its work. The force within the animal enables it to convert compounds prepared by the vegetable into tissue of its own and decompose others into their constituent elements, from which it forms new combinations for its own peculiar purposes. Thus sugars and starches are formed in the vegetable, of carbon, oxygen and hydrogen, to be decomposed into hydrocarbons and carbohydrates in the animal and formed into fat.

Chemic combinations and decompositions are accomplished by force within the body as without. This is but a particular form of the general force to which all matter is subservient, but of which animals and vegetables have the employment in the performance of their functions, and must not be confounded with that other and higher form of the same force which we call vital force. Hence it follows from this that the less decomposition and recombination required to transform vegetable products into pabulum for the animal to assimilate, and the less assimilative force to be employed the greater the conservation of force within the body will be conduced. The hydro-carbons as well as the carbohydrates are heat producing foods and serve the animal economy in the capacity of fuel. It follows that, to accomplish the final act of combustion and the evolvement of heat, the greater economy is, in pabulizing, for the animals, to employ those articles that require the least amount of chemic action; and perforce assimilation demands the minimum amount of vital force.—Samuel Knox Crawford, M.D., LL.D., before the American Med. Association, 1898.

ALCOHOL AS AN ANTIDOTE FOR EXTERNAL CARBOLIC ACID POISONING.

In New York Med. Jour., Jan. 14, Dr. A. M. Phelps states that pure alcohol is an absolute, powerful and immediate antidote for local carbolic acid poisoning. In evidence he states that Dr. Seneca D. Powell of New York, in his clinics at the Post Graduate Hospital, has for many years frequently used

"pure carbolic acid" in his hands, afterwards immersing them in "pure alcohol" with no escharotic effect upon the skin; that abscess cavities are flushed with "pure carbolic acid," followed with alcohol; that Dr. Powell uses 10 per cent. solution of carbolic acid to wash pleural cavity in empyema, followed with pure alcohol. From the report good results followed every application of carbolic acid as above stated.

CHEMICAL RELATIONS OF REMEDIES IN SCIENTIFIC THERAPEUTICS.

We seem now to stand upon the brink of a new era in therapeutics. We look to organic chemistry to furnish us with the active principles of tissues and serums, as it has given us the active principles of vegetable drugs. As the active principles of all plants have not yet been isolated, it need be no wonder that in a new field and dealing with complex animal tissues, this problem, for most substances, remains unsolved. A beginning, however, has been made. The efficacy of orchitic extract depends upon the presence of an organic crystaline substance called spermin, which exists in combination with hydrochloric acid. The active principle of the thyroid gland is believed to be the substance isolated under the name of iodothyrin. In the same way the antitoxins, in so far as they have been discovered, may be looked upon as the active principles of the immunizing or curative serums. Schaefer and Oliver have obtained from the medullary portion of the suprarenal bodies an organic principle which has a powerful action upon the heart, voluntary muscles and peripheral arteries.

The serums obtained from animals rendered artificially immune contain antitoxins and have proved of more value than those from animals naturally immune to certain maladies. The typic instance of the success in this form of therapy is diphtheria antitoxin. The wonderful reduction in the mortality from diphtheria which this preparation has effected cannot be gainsaid. Every physician should seriously debate in his own mind whether he has done his duty in a case of diphtheria if he has neglected to take advantage of the immunizing and curative properties of diphtheria antitoxin. As diphtheria is such a widespread disease, every reason, humanitarian and sanitarian, as well as scientific, should combine to make us welcome this important advance in the treatment.—

Dr. John V. Shoemaker in Jour. Amer. Med. Association, September 24, 1898.

WINKLERS TEST FOR FREE HYDROCHLORIC ACID IN THE STOMACH CONTENTS.

(Centbl. f. inn. Med.; Ref., O. Med. Jour., 1898, IX., No. 10, p. 239.) A small quantity of the normal filtered stomach contents, to which a few grains of dextrose has been added, is poured out on a clean porcelain plate; add a few drops of a solution of alpha-naphthol, and heat gently. A violet blue color is developed, which rapidly changes to inkish black. Or a standard test solution may be kept on hand, made by adding to a five per cent. alcoholic solution of naphthol a one-half to one per cent. solution of grape-sugar. As in the Gunzburg and the Boas tests, so also in this one there is a negative reaction if, instead of free hydrochloric acid, sulphuric or phosphoric acid is present.

COLLEGE CLINICS.

GYNECOLOGY—PROF. M'GANNON.

Reported by Dr. A. Hudson.

The first case to which I desire to call your attention is that of a white woman twenty-eight years of age. Three months ago she passed her menstrual period without any flow. This was soon followed by nausea and vomiting, with other signs of pregnancy quite familiar to her, since she is the mother of two children. She was quite satisfied she was pregnant. Two weeks later because of some pelvic pain she consulted a physician, who made an instrumental examination. She still continued to have irregular pains, until seventeen days ago she first noticed a slight bloody discharge, which has continued more or less ever since. Yesterday she had violent pains and expelled some clots and, she thinks, fully aborted. The patient was, no doubt, pregnant, and is aborting or has already aborted.

The diagnosis being made, how shall we treat the case? There is but one rule to be followed when the uterus shows an uncontrollable determination to rid itself of its contents, and that is, *aid nature in her efforts and be positive the organ*

is empty. Never be satisfied with the patient's statement that everything has come away; be certain that it has. Now how can we be positive that no remnants of the gestation still remain within the uterine cavity? By exploring it, not otherwise. Make it a rule to do this in every case in which there is the slightest doubt.

I shall apply the rule to this case, in which there is, in my mind, still much, if not all, of the fœtus and its membranes nnexpelled. The patient will not require an anesthetic, since the os uteri is patulous and will readily admit a large curette. Every precaution to insure surgical cleanliness must be observed—instruments sterilized, patient scrubbed, water boiled, and my hands, as well as those of my assistants, as far as possible made sterile by thorough washing with soap and water. All being now in readiness, the patient being in the Sims position with the posterior vaginal wall retracted, exposing the cervix uteri, it is grasped and held steady with double hooks. The curette is now introduced to the fundus uteri and the whole interior of the organ thoroughly scraped. The walls are soft and it would be an easy matter to push the instrument through them into the peritoneal cavity. Care is essential. The results of the curettement I shall pass to you for inspection. They are a small fœtus, a more or less well defined placenta and some blood clots. I shall now wash out the emptied cavity with sterilized water and pack it loosely with sterilized gauze. This will be removed at the end of twenty-four hours. The patient will be kept in bed for a week, or longer if at the end of that time she still has some sanguinous discharge.

Permit me to emphasize the chief facts to be borne in mind in the case we have had under observation.

1. Do not examine with instruments a patient whom you suspect of being pregnant, since an abortion may follow, or even without it your reputation may suffer.

2. Never act upon a patient's statement that everything has come away; *know that it has.*

3. Use a curette with care, but thoroughly.

4. Surgical cleanliness is as essential in emptying the uterus as it is in an hysterectomy.

5. The operation is not without danger.

SOCIETY MEETINGS.

Mississippi Valley Medical Association (concluded).

SECOND DAY—ATTERNOON SESSION.

Dr. Thomas Hunt Stucky, of Louisville, read a paper on "Auto-Intoxication of Intestinal Origin."

Dr. Edwin F. Wilson, of Columbus, Ohio, followed with a "Clinical Report of a Case of Abscess of the Liver." In speaking of the clinical aspects of abscess of the liver, he called attention to the essentials in diagnosis, and dwelt upon the history of the disease. He reported three cases. Of these, the diagnosis was confirmed in two by post-mortem; in the other by aspiration. In all three the abscesses were chronic when the patient came under his observation. In only one of the cases was there a history of dysentery, although in one case scars of healed ulcers were fouud in the large intestine. In these cases he finds the enlargement of the liver is upward. Hoover has made a diagnosis of abscess of the liver from a friction sound in the axillary line between the eighth and tenth ribs. The essayist has not heard this sound in any of his cases, but this should be borne in mind when making an examination in this region. Two of the cases reported were mistaken for malaria. This mistake can be avoided by the more general use of blood examinations. The absence of plasmodium would settle this at once.

Dr. J. C. Morfit, of St. Louis, read a paper on "The Importance of Early Diagnosis in Surgical Cases." The diagnosis of a disease ought to be the most attractive feature in the practice of medicine or surgery. It is the foundation on which any plan of treatment is applied. The physician should promptly and exhaustively weigh every indication of cause and effect and apply his therapy accordingly. He has recently seen two cases of pyosalpinx which were cured by surgical interference. Both had been treated by good practitioners, yet neither had made a complete physical examination, and consequently the real trouble was not detected. One was treated for indefinite inflammation of the bowels, the other for malaria. He cites these cases to emphasize the duty of the physician to himself and his patients of utilizing every available means to arrive at an early and positive decision as to what he is treating.

Dr. George W. Johnson, of Dunning, Ill., read an excellent paper entitled "Gonangiectomy and Orchidectomy for Hypertrophied Prostate in the Aged," in which he reported five cases and made a second report on twenty-eight cases previously recorded. At the outset the author referred to the celebrated paper of J. William White, entitled "The Present Position of the Surgery of the Hypertrophied Prostate," read before the American Surgical Association in 1893, and to other contributions found in current medical literature.

From the cases reported in literature he was led to undertake treatment by this method a little more than a year ago. He had familiarized himself with all the different methods of examining patients, as well as with the surgical and medical methods of treatment, and he had done the work as thoroughly and systematically as possible to determine further the real efficacy of orchidectomy and gonangiectomy in the treatment of the senile hypertrophied prostate. Of the twenty-eight cases, twenty-six may be said to be perfectly cured. They have not had any more trouble with their urine, and are in good health. Of the other two, one has had retention once since operation; the other, which was a case of bilateral gonangiectomy, has enuresis at night once in a great while, and goes to the urinal more than the normal number of times during the day. This, however, is the case he had previously reported as suffering from senile dementia. Mentally, his condition is unchanged. The deep silk sutures have been removed from three cases through a sinus opening after having been in place about one year. The gastro-enteric trouble, which is almost universally present in these cases, and which is so often found as a sequel of chronic prostatic troubles, has disappeared in every instance. No deaths have occurred among the twenty-eight cases. Of this number, every one of which was extremely asthenic at the beginning of treatment, with chronic prostatitis and cystitis, complicated by enormous hernia of many years' duration, it may be stated that the surgical treatment in every case has been a complete success and beyond the most sanguine expectations.

Dr. Johnson arrived at the following conclusions:

1. All cases of prostatic hypertrophy should be given at least two weeks of palliative treatment, with rest in bed. This treatment should be regulated according to the conditions. The bowels should be kept free; sitz baths; counter irritation to the perineum; medicated suppositories for rectal pain; besides douches of nitrate of silver, bichloride of mer-

cury, ichthyol and diluents for the urine, with milking of the prostate every second or third day, together with regulation of diet. Of the cases so treated by him, one in four required no operative interference.

2. If no relief is had from this line of treatment, a thorough and systematic examination should be made for vesical calculi and polypi, as well as structural and malignant disease of the prostate and bladder. Cystitis, acute prostatitis and prostatic abscess should always be borne in mind. The urine shonld be frequently examined. In cases of cystitis he is of the opinion that the ureters should be catheterized to more accurately determine the condition of the kidneys. This can now be easily done by the Harris instrument. If by digital examination per rectum the prostate is found to be enlarged, its approximate dimensions should be noted and urethral measurements taken. The patient should then be as well prepared for operation as possible. If an operation is not especially urgent, two weeks' time is usually sufficient. Having decided upon operative interference, the operator alone must decide upon what operation he will do. Personally, he believes that gonangiectomy or orchidectomy offers less risk to life.

3. Chloroform should be used, as it requires less time and is not so irritating to the kidneys. The operation should consume as little time as possible, for these patients will quickly succumb to long anesthetics and operation. As to time, gonangiectomy or orchidectomy can be done quicker and with less shock than any other operation; there is less liability to secondary infection. Much will depend upon the after treatment. With busy surgeons this point is too often neglected. If herniotomy has not been done and the patient is asthenic, the shorter the time he is kept in bed the better, for such patients soon go to pieces if confined to bed too long.

4. The time for relief after operation is irregular. In his experience the relief has not been as clearly defined as to hours and days, nor as immediate as in most cases reported. In but two cases has the catheter been required after operation. Enuresis was constantly present in his cases for from one to six weeks after operation. The relief from vesical distress is usually the first sign of improvement, and this is always gradual, not spontaneous.

5. More immediate relief is given to cases of orchidectomy, and the prostate grows softer and diminishes more rapidly in such cases than where gonangiectomy is done.

6. The kidneys should be carefully watched and supported after operation. Mental symptoms appeared in three of his cases, two of which were most certainly due to renal disease, for when treated for this condition they almost immediately became lucid and have remained so. Residual urine should be carefully measured from time to time.

Long standing and troublesome hernia can be successfully treated in the senile. He had successfully treated eighty-four cases, not one of which has recurred up to this time. Among this number he has six times encountered the condition of congenital with acquired hernia. In five of the cases the acquired sac was outside of the congenital one. In one case it was within it. Of this condition he has been unable to find anything in recent works on surgery and anatomy, nor has he been able to find any cases reported. In all of these six cases the hernia had been present almost the lifetime of the patient, but had gradually grown in size, which was undoubtedly the formation of the actual hernia. He has used formaldine catgut sutures, No. 3, for the buried sutures in all but three of his cases, and in these he used braided silk, which had to be removed one year later. Moist bichloride dressing was always used, and the superficial sutures removed on the fifth or sixth day. In case of orchidectomy, no incision was made in the scrotum, and no drainage whatever used. It is his judgment that the less the scrotal tissue is disturbed the better. Bassini's operation was resorted to in all but five cases, in which Fowler's method was used. It seems very surgical to the author, but requires too much time in such cases as he has reported.

8. Cystic degeneration of the testicles was met with in twenty-five cases. These cases usually had chronic hydrocele also, and were always cases with hernia of long duration.

9. When the intestines occupied the scrotum in large mass, they were returned to the abdominal cavity three or four days before the operation. In many instances there were adhesions preventing reduction.

10. Examinations were always made for vesical calculi, but none were found.

11. The somatic condition is greatly improved, and when bilateral orchidectomy was done the patient became obese.

12. A thorough line of palliative treatment of from two to six weeks' duration, with rest in bed, was given each patient. If operation was required, preparation of from one to three weeks was made by special diet, whisky and full doses of

strychnine, with a thorough cleansing of the bowels before operation.

13. In cases of hermiotomy the patient was kept in bed from three to five weeks, unless very asthenic, with the hope of getting better organic union and thereby minimizing liability to recurrence.

14. In a personal examination of the prostates of 360 men over 55 years of age, the large majority being between 65 and 75 years, he found 186, or 75 4-9 per cent., to have very perceptible enlargement of the prostate. In 65, or 18 1-18 per cent., there was urinary disturbance. In 56, or 15 5-9 per cent., the prostate was so large that it could not be outlined by digital examination per rectum. Of these 56, 14, or 25 per cent., had urinary disturbance constantly, such as dysuria, frequent micturition day and night, rectal and vesical tenesmus, retention at times, with residual urine and cystitis. In 210, or 58 1-3 per cent., the prostate was very perceptibly enlarged; 43, or 20 per cent., had urinary disturbance of a milder degree than those above mentioned. The right lobe was markedly more enlarged than the left in 7, or 1 17-18 per cent. Of the 7, 5, or 71 3-7 per cent., had urinary disturbance. The left lobe was also enlarged in 7, or 1 17-18 per cent., but has urinary disturbance. The middle lobe was slightly enlarged in 5, or 1 7-18 per cent. None complained of vesical distress. The prostate was found to be normal in 44, or 12 2-9 per cent. It was atrophied in 30, or 8 1-3 per cent. Of these 30, 2, or 6 2-3 per cent., had slight enuresis.

It will be noted that this percentage is higher than that given by Thompson and White, but this census is taken from a strictly hospital population. The rather extreme age and the fact that most of the men have had gonorrhea or syphilis, may account for the high percentage.

The cases he has reported as requiring surgical treatment are not included in this census.

BOOK NOTICES.

A PRACTICAL TREATISE ON FRACTURES AND DISLOCATIONS. By Lewis A. Stimson, B.A., M.D., Professor of Surgery in Cornell University Medical College, New York; Surgeon to New York and Hudson State Hospitals, etc.; pp. 813. Illustrations, 326. 20 plates. Lea Bros. & Co., New York and Philadelphia.

Dr. Stimson's reputation as a surgeon would lead us to expect a particularly meritorious effort under this title, and a perusal of the work does not disappoint us. It is up to date in every particular, dealing concisely with the etiology, pathology and treatment of fractures and dislocations, and containing a large section devoted to the Roetgen Rays. Its arrangement is a most convenient one, and the quality of thoroughness is apparent on every page. Withal it is a work for the practitioner rather than for the undergraduate. The publishers have presented it in a most attractive volume.

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HYSTERIA.

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To the general practitioner of medicine no diseases are so perplexing, so little understood and, generally speaking, so unsatisfactory in the results achieved by treatment as are diseases of the nervous system, with their varied and complex symptomatology, their frequent association with other acute and chronic affections, and the consequent difficultv experienced in distinguishing primary organic disease in the nervous system from conditions which are functional, reflex or secondary. This is especially true of hysteria, a disease with which every one is familiar, but which no one understands; a disease which is constantly before the physician in one or other of its varied forms, persisting for months or even years, or vanishing as by a magician's wand, or as suddenly being transformed into a new being clad in a garb new and strange and dancing before the discouraged physician as though scoffing at him in his impotence.

What hysteria is, where it begins or where it ends we know not, and a clear definition of the border line between

the hysterical and the non-hysterical is as difficult to give as it is to say where sanity ends and insanity begins.

It was once believed that hysteria originated in the womb, and it was even thought that this organ traveled about through the body setting up the various symptoms in its train. This ancient idea has long ago been abandoned, and, occurring as the disease does in males, and in females, even when the uterine functions are inactive, it is now believed that there is no direct association between it and the female generative organs, which have no other influence than that of sometimes reflexly exciting the attack.

We now apply the term hysteria to an undefined morbid state of the nervous system, with its primary derangement in the higher cerebral centres, but affecting secondarily the functions of the lower centres in the brain, spinal cord and sympathetic system, and characterized by psychical disturbances, with or without various disorders of the motor, sensory and vaso-motor systems.

What the exact nature of this derangement is either in the higher or lower centres is not clear. Certainly no macroscopic or microscopic changes have been observed by the pathologist that could in any way explain the various symptoms of the disease. On the other hand, careful and systematic examination of the nerve tissues by all the modern methods known to science goes to show that no abnormality of any kind can be discovered. Certain structural changes have occasionally been found, but they are undoubtedly secondary, as was the sclerosis of the lateral columns of the cord in Charcot's well known case of a woman who died after many years of persistent contracture of the limbs.

In the light of modern pathology, it is claimed by many that no disease can be regarded as functional, but it is still the most convenient and probably the best term we have to apply to those various conditions and manifestations of disease which present no known change in the structure of the organ or organs whose functions are perverted, and therefore we must still speak of hysteria as a functional affection.

Whatever this functional derangement of the higher centres may be, it produces a disturbance of the proper balance between the higher functions of the brain, and is equivalent in most cases to a want of self-control, to a giving way to the feelings, and in its effects upon the lower centres it probably acts as Stephen MacKenzie holds by causing a suspension of functions in the so-called inhibitory centres, in this

way giving rise to uncontrolled functional activity on the part of the motor, sensory or vaso-motor systems.

Walton, Voigt, Rosenthal and others claim that the various hysterical manifestations are due to anæmia of the centres involved owing to temporary vaso-motor contraction, and in support of this theory point to the peculiar irritability of the vaso-motor system in this disease. Most authorities, however, incline to the view that molecular changes take place in the central nervous system, temporary in duration and not to be detected by any known methods of examination. Certainly whatever the conditions are the lesions cannot be of an organic nature, such as inflammation or sclerosis, or we could not account for the sudden recoveries in hysterical cases of the gravest kind.

Though we cannot resist entertaining the idea of some possible or even probable undiscovered structural change and must still be content to regard it as a functional disorder, it is undoubtedly a real malady which is to a large extent beyond the influence of the patient's will. The loss of control is genuine in most cases and is only regained by some profound impression upon the higher centres; not voluntarily recalled by the patient, for in many instances there is an actual paralysis of the will, or, as Sir James Paget puts it, the patient might truly say, "I cannot will."

In many cases of hysteria the psychical features are of such a nature and predominate to such an extent as to suggest insanity as a possible element in the case, and undoubtedly, as Osler says, "The disease occupies the ill-defined territory between sanity and insanity."

It is in many cases impossible to draw the line between these two conditions, many hysterics exhibiting a condition of moral degradation and a tendency to deceive and lie to an extent that can only be accounted for by their having crossed the border line. Again, these resemblances are not infrequently reinforced by various hallucinations and delusions on the part of the neurotic patient. The mental symptoms of course vary widely in different cases, but I believe that a psychical element is or has been present in every case of hysteria even when the manifestations are apparently purely physical.

ETIOLOGY.

Hysteria is almost unknown among the barbarous races, and seems to be a product of the higher cerebral development

of civilization. The most severe types are probably seen in France, though Guiteras states that the severe forms with mental and motor symptoms are extraordinarily frequent among the Cubans.

Hysteria is much more frequent in females than in males, Briquet's figures being 20 to 1; but inasmuch as many of the cases of so-called hypochondriasis in men are hysteria, these figures probably indicate too great a disproportion. The disease may in men be characterized by any of the forms common to women, and some of the most severe and intractable cases are met with in members of the male sex.

No age is exempt from this disease. It has occurred in a child of three years and again in extreme old age, but it is especially frequent at certain periods of life. In the following table Briquet and Landouzy give the percentage number of cases in each decade, the ages given being those where the symptoms first appeared:

Age	10	20	30	40	50	60
No. of cases .	8	50	28	10	3	1

From this it will be observed that fifty per cent. of all cases first presented symptoms between the ages of ten and twenty, more than seventy-five per cent. between the ages of ten and thirty and only one per cent over fifty. Savill of London relates a case of hysterical aphonia in a woman of 71.

Heredity plays an important part in the etiology of this affection. There may or may not be a direct history, but in the great majority of all hysterical cases there can be discovered some inherited neurotic tendency which may have manifested itself in such diseases as epilepsy, chorea, insanity, alcoholism, etc. Of the causes in the individual these may be mental or physical.

Severe mental strain, injudicious management of growing girls, and especially vicious moral influences, may increase the inherent predisposition and excite the disease; an attack is frequently precipitated by some emotional influence, as a sudden alarm or fright or some dire calamity, many people exhibiting some of the minor manifestations of the disease when laboring under strong emotion.

PHYSICAL CAUSES.

In many cases there is present some defect in the general health, as anemia, disturbed functions in various organs, or

debility incident to some exhausting disease. Disease of the generative organs is present in perhaps half the cases, but this serves only to depress the nervous system and cannot be said to be the cause, as the organic defects are often but trifling and the hysterical symptoms frequently persist after the removal of the local trouble. Ovarian tenderness is frequently but not always present, and is not confined to hysterics.

Hysterical symptoms are frequently much more marked during menstruation and the menopause, owing to the disturbing influences of these conditions upon the nervous system. Sexual excitement acts in a similar manner. Hysterical symptoms not uncommonly appear in the predisposed during the course of some general or local disease, and, simulating some grave organic disease of the nervous system, give rise to considerable anxiety on the part of the physician until he is able to thoroughly satisfy himself as to the true nature of the case.

Local diseases may set up hysterical symptoms, as, for example, an acute laryngeal catarrh may excite an attack of hysterical aphonia of great obstinacy and persistence.

Neurotic symptoms frequently follow an injury producing a clinical picture that calls for all the skill of the surgeon to enable him to read correctly. Again, what is perhaps the most perplexing of all is the very frequent association of hysterical symptoms with other nervous diseases, both functional and organic, such as epilepsy, cerebral tumor, hemiplegia and various diseases of the spinal cord, giving rise to a condition so complicated as perhaps to render a diagnosis impossible. As Weir Mitchell says, "The symptoms of real disease are painted on a hysterical background." It is interesting to note that this disorder may be spread by irritation, producing the so-called hysterical epidemic, the disease usually in these cases taking on the convulsive type. Numerous instances of such epidemics have been recorded, the outbreaks generally occurring in schools, workshops and certain religious conventions where emotional excitement is at a premium.

Many and variable as are the symptoms of hysteria, they will be found to fall within one of the following groups, viz.: psychic, sensory, motor, secretory and vaso-motor.

PSYCHIC SYMPTOMS.

Even in the earliest stages of the disease patients usually exhibit a marked degree of irritability, are sensitive to little

troubles, and trifles cause great annoyance. They lose their self-control and are unable to free themselves from a condition of depression that may almost amount to melancholia. Self consciousness rules the patient's thoughts and actions, and her description of even her slightest ailments is greatly exaggerated; she is always seriously ill. A hysterical patient loves an appreciative companion or audience, and sympathy serves only to encourage her to yield to, rather than resist her morbid tendencies, until she actually induces symptoms and simulates disease, the symptoms getting beyond the patient's control. Such a patient, already emotional, conceives the idea of pain or stiffness, and in time the pain is actually felt or contracture really appears.

How frequently do we see patients, who, having experienced a slight neuralgia pain in the left inframamary region, at first feared that it might be due to disease of the heart and later persuaded themselves that they were victims of incurable cardiac disease, suffering constant misery and apprehension, even though assured by their physician that the suspected organ was perfectly normal. Perhaps you will say this is hypochondriasis, but where do you draw the line between the two conditions? Hysterical patients are not only irritable, but they are very emotional, now breaking out into immoderate laughter, again crying and sobbing bitterly, often passing from one state to the other in a few moments. These emotional disturbances may be paroxysmal and are usually induced by the most trifling causes.

Another symptom which is very common and is really psychic is the "globus hystericus," which is felt as a ball or lump rising from the sternal region into the throat, or as if something were gripping the throat. This may be experienced even in the non-hysterical when suddenly frightened, and is often described as the heart leaping into the mouth.

Another remarkable condition occasionally seen is that known as "trance," which usually follows convulsive attacks and is due to inhibition of function of the higher centres. Even cataleptic conditions are sometimes met with in which there is a peculiar plastic rigidity of the muscles, the limbs retaining the position in which they are placed. Some cases approach, others cross the border line of insanity, many writers recognizing hysterical insanity as a distinct mental disease. Spitzka speaks of chronic hysterical insanity as an intensified hysteria. It may take the form of hysterical mel-

ancholia, mania or mono-mania, some cases resembling the latter very closely in the fixity of their ideas regarding themselves and in their developing suspicion regarding others. In a severe hysterical fit with frenzy the patient is temporarily insane. Delusions and hallucinations may even be present.

SENSORY SYMPTOMS.

There may be derangement of all the sensations, general and special. This may be manifested in exaggeration which is sometimes real, as when sounds are heard which are inaudible to others and objects seen which are invisible to others, or disagreeable odors perceived by the hyper-acute sense of smell. Morbid taste is also a frequent symptom. Hyperaesthesia is sometimes general, but is often limited to certain spots or areas which may be clearly defined. It is often unilateral and superficial, but may again be deep-seated, as over the ovaries, especially the left. Pressure upon these tender ovaries and sometimes over the tender spots causes pain and often a sense of faintness and globus hystericus or even convulsions. These spots are Richer's "hystero-genetic zones," and the localities in which they are most frequently seen are the left ovarian region, the spines, and of these especially the dorsal, the left inframammary region and various spots on the abdomen. This extreme sensitiveness is occasionally felt all over the abdomen, simulating peritonitis, and may even be present all over the body. Pain in the left inframammary region is a common symptom, while more frequent still is pain in the vertical region of the head, often severe like a nail being driven in—the "clavus hystericus."

Vague sensations of numbness are among the commonest sensory manifestations. These are usually unilateral and are very frequent in the tongue, especially at the menopause. The so-called nervous chills or shiverings are very common. Pain is sometimes felt in the joints with vaso-motor swelling simulating actual arthritic disease.

Anesthesia is very common, though often unnoticed by the patient, and is one of the most interesting and diagnostic features of the disease. It is usually unilateral and may affect the mucous membranes of the nose, mouth and palate, the latter being of especial diagnostic significance. The patient may not feel a touch, not even a needle sunk into the skin, and even cold and heat may not be perceived, but peculiarily, the tender spots usually remain on the same side.

This loss of sensation may be partial, affecting small areas, and is often here to-day and gone to-morrow, and while it usually affects the left side it may move from one side to the other. Charcot has shown that this transfer of the anesthesia can sometimes be produced by stimulating the skin with blisters or faradaism. A peculiar feature of the loss of sensation in hysterical paralysis is that it has the distribution of a sock or stocking, affecting the skin below a horizontal line drawn around the limb.

The special senses upon the anesthetic side are frequently diminished; for example, there may be temporary blindness.

The motor disturbances in hysteria may affect almost any part of the motor apparatus, the commonest manifestation being paralysis, which may appear suddenly or gradually. It may follow a hysterical convulsion and is sometimes unilateral, producing a hysterical hemiplegia, or affects both lower limbs—a paraplegia. Perhaps the larynx is more frequently affected than any other part, with paralysis of the adductor muscles, resulting in hysterical aphonia in which the patient speaks only in a whisper or is perfectly mute. These patients can sometimes sing well, but can only whisper when speaking, and cases of this kind have been known to speak quite clearly when asleep. Faradaism to the larynx may lead to the sudden recovery of the voice, as in a case of a woman of 71, reported by Savill. This hysterical aphonia follows a slight laryngeal catarrh. In recovery the speech usually returns quite suddenly.

When the paralysis affects the limbs either as a hemiplegia or a paraplegia, the onset is usually sudden, but at first moderate and gradually increased, though rarely absolute. Even when persisting for a long time there is little or no muscular atrophy, and the electric irritability remains normal. It is often induced by emotion, appearing suddenly as a "giving away of the legs," and is sometimes accompanied by pain.

In hemiplegia the left side is usually affected, and a diagnostic feature of the disease is seen in the fact that the face always escapes entirely. The organic and skin reflexes are normal, while the knee jerks are excessive, sometimes to a marked degree, and an irregular ankle clonus is rarely observed.

Next to paralysis, the commonest motor symptoms are the muscular contractions, which may be persistent, with clonic

spasms, or paroxysmal, as convulsions. In contracture we have a tonic spasm of the affected muscles, which is increased by an attempt on the part of the physician or attendant to overcome it, and this intensifying of the contraction under such circumstances is an important diagnostic feature. It usually persists during sleep, but relaxes under complete anesthesia, after which it may not return. It is seen sometimes in a spasmodic closure of the jaws, hysterical trismus, and is very common in the limbs, especially in the arm, in which it is always the flexor muscles that are affected, the arm being flexed and rigid, and the fingers flexed with the thumb often outside the fingers or between the first and second. Contracture may follow a convulsive seizure and frequently follows an injury. If this spasmodic contraction which succeeds an injury should, as it is likely to do, spread to muscles which could not be affected by the injury, the nature of the case is clear. In the leg these contractures usually fix it in extension instead of flexion as in the arms. Anesthesia usually accompanies this condition, affecting a stocking-like area below a horizontal line as before remarked. These contractures may persist for years, but often disappear suddenly under the influence of some powerful emotional or mental impression, and are among the cases which give such a reputation to faith curists, divine healers, Christian scientists, etc.

CONVULSIVE SEIZURES.

Of all individual symptoms the globus hystericus is the most common, and while in the majority of cases it is purely psychical, in some there is undoubtedly a convulsive spasm of the pharyngeal muscles. In the hysteroid or hystero-epileptic convulsions, rigidity of the trunk and limbs, often opisthotonos, alternate with wild movements in which the limbs are thrown about with great force, the arms striking out and the legs kicking as though the patient were struggling or fighting, consciousness being apparently lost. The spasms vary, sometimes tonic and again clonic, but usually lacking the regular order observed in true epilepsy, last for a variable length of time and terminate in a state of emotional disturbance in which the patient talks irrrationally, with fits of laughing or crying. Tenderness is nearly always present in the ovarian region, and pressure thereon may precipitate a fit, or if exerted during an attack may check one. Warnings are usually present, as giddiness, globus hystericus, etc., and

though these patients often fall to the ground, they do so with a sliding motion and never injure themselves as in epilepsy.

Among the interesting features of hysterical convulsions are the frequency of opisthotonos and tonic spasms generally, the struggling character and violence of the movements which are increased by an effort to restrain them and the duration of the fit, which is usually prolonged. The tongue is not bitten as in true epilepsy and the eyelids are usually closed.

VISCERAL AND VASO-MOTOR SYPTOMS.

Difficulty of swallowing may be present owing to pharyngeal or œsophageal spasms. Vomiting or regurgitation of food, usually immediately or within fifteen minutes after it is taken, is a very common symptom and one of distressing persistence. Usually it is painless and without nausea, but at times is accompanied by severe and long continued retching. It may follow an acute gastric disturbance, becoming involuntary, but it frequently appears without such a cause and even in some cases may be induced by the will. As a rule, nutrition does not materially suffer, as some food is retained. The most remarkable digestive derangement in hysteria is complete anorexia, or Gull's anorexia nervosa. In these cases the patients really do not take food, and in consequence become reduced to such a marked degree of emaciation as is rarely seen in any other condition. Though these cases usually recover death may result in extreme cases. Various forms of dyspepsia are common, as also is constipation.

Retention of urine is a not infrequent symptom, while frequent micturition with an abundant secretion of pale, limpid urine is common, especially in emotional and convulsive cases. Hysterical cough and palpitation of the heart are of course every day symptoms, while tachycardisa is occasionally seen.

The most common manifestations of vaso-motor disturbances are flushings of the face, often alternating with cold feet, local perspirations and swellings about the joints, especially of the hands and feet. In severe cases of hysteria the temperature is sometimes slightly elevated, but though cases have been recorded with a temperature of 110° to 120°, which must be accepted, still the great majority of such cases are evidently fraudulent. The so-called phantom tumors occasionally observed in the abdomen, breast, thigh and calf

are probably due to vaso-motor disturbances associated with muscular spasm.

Time does not permit of consideration of the treatment of this interesting disease. Suffice it to say that the chief therapeutical indications are to improve the physical strength and to elevate the moral tone by restoring confidence and resolution and by cultivating self help and self reliance. The confidence of the patient must be won, and this cannot be secured by harsh treatment, but rather by a liberal diet of the milk of human kindness. Complete confidence once gained offers the best prospects for a successful issue to any line of treatment that may be adopted, especially when the intelligent co-operation of the patient's friends is secured.

THE TREATMENT OF INTERNAL HEMORRHOIDS*

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Probably more ingenuity has been exercised in devising methods and measures for the relief of internal hemorrhoids than for that of any other single complaint. The first recorded cases are found in the earliest chapter of human history, appearing in the strange guise of a curse or plague sent upon the Philistines by Jehovah for taking the ark of the covenant from the children of Israel. The remedial agency employed in these cases was likewise supernatural in character, consisting in placing golden images of the "emerods" in a coffer by the ark and returning it to the Israelites. Though the rationale of the remedy's action, it must be confessed, is somewhat obscure, it was effective; for we are told that the sufferers were healed and the curse removed.†

Thus, accepting the biblical account, we learn that the first cure of hemorrhoids was wrought by a miracle. From that time on, for many generations, the modern conception of rational therapeusis was violated with a uniformity and persistence truly remarkable; and the marvelous cures recorded by the older writes as having been effected by means of charms, amulets, and wonderful decoctions would argue that miracles did not cease with the repentance of the Philistines. Even to-day there are in every community certain individuals who carry buckeyes in their pockets, both as preventives and as sure cures, and others of even the more enlightened class, who deem the pile remedy of some ignorant old darkey more potent for good than the combined wisdom and skill of the entire medical profession. An historic review along these lines might afford entertainment; but our object is profit, not pleasure. We come at once, then, to the consideration of the subject proper.

The treatment of internal hemorrhoids, like that of nearly all diseases, naturally divides itself into two classes, medical and surgical. Of the former comparatively little need be

*Read before the Southern Kentucky Medical Association, Hopkinsville, May 24, 1898.
†Old Testament. I Samuel, 5 and 6.

said, and that only in deference to the requirements of the timid doctor and the prejudiced patient; for in the presence of this malady, as usually encountered, one incontrovertible fact coufronts us, namely, that when the disease-process has resulted in the formation of organized tumors medication, local constitutional, or combined, is utterly powerless to remove them. However much, then, may be accomplished by such measures toward the relief of symptoms, it must be accepted and borne in mind that medical treatment is merely palliative, not curative.

Called to a case or consulted by a patient for internal hemorrhoids, operation for any reason being impossible, the treatment required will depend largely upon the conditions present. Should the tumors be prolapsed and strangulated their replacement in the rectum would be the immediate indication. In many cases this is by no means a simple matter, for before the physician is consulted the desperate efforts of the patient will have resulted in bruising the parts and increasing the spasmodic contraction of the sphincter, thus adding tenfold to the difficulty of the undertaking. A little patience and dexterity, however, will generally accomplish it. If the tumefaction is great, application of ice-cold water, or a bag of crushed ice will usually reduce it and at the same time contribute much to the patient's comfort. Then the entire mass should be well anointed with olive-oil or other lubricant, the index finger slowly inserted into the bowel, and, around it as a center, gentle taxis made with the fingers of the other hand. Such procedure will not often fail. If it should, in order to prevent gangrene and its consequent dangers, division of the sphincter muscle or performance of the radical operation would be the only alternative. Pain is rarely severe except when the tumors are protruded, and, in such event, relief speedily follows reduction. The only other condltion that might demand special attention is hemorrhage. This is seldom so excessive as to place life in immediate jeopardy; but on account of its tendency to frequent recurrence it constitutes one of the chief dangers of the disease. When the symptoms call for special treatment the local application of ice, cold water, or styptics, with rest in the recumbent position, is generally all that is neccssary.

Speaking in general terms of the non-surgical treatment we may say that it consists more in hygienic than in medical measures, and that, properly considered, its object is palliation and prevention rather than cure. Summing them up in

very brief form, the main reliances may be said to be: Keeping the bowel function regular; careful avoidance of costiveness; the habitual use of cold water, especially after stools; regulation of the diet; exercise of judicious kind and amount; the employment of astringent and emollient applications and rest in the recumbent position when inflammation is present or an attack is threatened. The action and the utility of these measures are obvious. I stop for a word of comment upon only one. The usefulness of cold water in the treatment of this disease does not seem to be fully appreciated, when the truth is that in the large majority of cases its value is greater than that of any other topical application. The therapeutic action of this agent in constringing and toning blood vessels and allaying inflammation is well known. Yet in the hemorrhoidal disease, with every indication for its employment present in a peculiar and marked degree, it is practically ignored. In these cases it is my rule to lay special stress upon the toilet of the rectum; to interdict the use of ordinary detergents and to direct that the parts be freely bathed with cold water after each stool, and that a moderate quantity be thrown into the bowel once to twice daily with the syringe. By this means, together with careful observance of the hygienic points before mentioned, the patient may keep himself comfortable for an indefinite time.

By way of introduction to the consideration of the surgical treatment, it is well to recall the conclusions reached upon several important points in our former discussion: (1) With, possibly, very rare exceptions hemorrhoids are not salutary; (2) the existence of acute inflammation is not sufficient reason for temporizing; (3) hemorrhoids are always pathologic, and, the internal variety especially, a menace to the patient's health. Consequently, when at all troublesome, the surgeon is justified in advising operation, unless by reason of extraneous conditions it be positively contraindicated.

The operative procedures that have been devised for the cnre of internal hemorrhoids are both numerous and varied. With one or two exceptions they are all of ancient origin, being in every essential particular identical with those practised by Hippocrates and his disciples more than twenty centuries ago. Modern surgery can lay claim to no credit in this field of work, except such little as attaches to modification of method and improvement of technic. The only forms of surgical treatment that are, properly speaking, of

recent origin, are electrolysis and the injection method, and it is a matter of considerable doubt whether either of these possesses any special merit.

The list of operations includes: (1) Dilatation of the sphincters; (2) electrolysis; (3) the topical application of caustics; (4) crushing; (5) torsion; (6) injection; (7) excision, including Whitehead's operation; (8) ligation; and (9) removal by clamp and cautery. It would obviously be impossible to discuss all these methods in detail, nor is it either necessary or desirable to do so. The majority can only be condemned as inefficient or unsurgical and may be disposed of in a very few words.

(1) In the initial stages of the complaint, when the disease process has not advanced beyond the point of dilatation and varicosity of the vessels, divulsion of the sphincter might act as a beneficial measure; but after the formation of organized tumors it would manifestly be powerless to cause their disappearance. The manipulation is of decided value, however, as a preliminary to the radical operation, rendering the parts easy of access and doing away in large measure with the after-suffering of the patient.

(2) Electrolysis is rarely resorted to except by those who regard electricity as a universal panacea. It is practiced by passing a needle attached to one electrode into the pile-tumor, placing the other electrode in contact with the body at an adjacent point and turning on the current for from five to ten minutes. This treatment is claimed to cause gradual absorption and atrophy of the tumors. It requires, however, to be often repeated, is uncertain as to the result, and is by no means free from pain.

(3) The application of chemical caustics to the surface of pile-tumors has nothing to recommend it. The action of such agents is slow and painful, and the whole process is unsurgical. Only in the rare variety of internal hemorrhoids known as capillary or nevoid should this treatment be considered. Here a drop of nitric acid applied to the growth is one of the best and most certain means of effecting a cure.

(4) Crushing and (5) torsion are methods similar in principle and differing only in the means employed. Of the former, Mr. Pollock, of London, was the most notable modern advocate, he having devised a special instrument for the purpose. In the torsion method, of which Dr. Manley, of New York, was the originator, the same object is sought to be accomplished with the fingers, each pile-tumor being grasped

separately and crushed and twisted to a pulp. The ecraseur has been employed for a similar purpose, especially by the French surgeons, the celebrated M. Chassaignac being perhaps its most conspicuous advocate. None of these methods is in keeping with modern ideas of surgical practice and all are open to grave objections. The great danger of secondary hemorrhage should alone be sufficient to prevent their use.

(6) The injection method of treatment requires a somewhat fuller consideration, not because of any merit it possesses, but in order the more intelligently to condemn it. This method first came into prominence about the middle of the present century, when it was largely practised by traveling charlatans who claimed to have "discovered" it; but the principle involved is an exceedingly old one, though there is no record of its having been applied to the treatment of hemorrhoids previous to the time mentioned. The subject first gained the notice of the regular profession through the investigations and endorsement of Dr. Andrews, of Chicago, who published several articles on it in 1879. Since that time it has received thorough trial at many hands, and almost invariably the verdict has been unfavorable. The method consists simply in injecting a few minims of certain solutions into the substance of the pile-tumors by means of a hypodermic syringe. The agents employed and the strength of the solutions have varied widely. Carbolic acid seems at present to be most in favor. It is mixed with glycerin or olive oil in proportions ranging from 5 to 95 per cent.

Now, such remedies could only act to the desired end in one or two ways, either by producing atrophy of the tumors or by causing them to slough. If the former occur the result is only temporary; if the latter, it is most likely disastrous. Dr. Kelsey, of New York, whose experience with this plan of treatment has been very extensive, sums up the disadvantages as follows:

"(1) Pain; (2) ulceration; (3) marginal abscess; (4) fistula; (5) the impossibility of giving any definite prognosis as to the length of time necessary to effect a cure or the amount of suffering the treatment will entail; (6) the fact that the treatment does not result in a radical cure, but that the tumors reappear after two or three years."*

He also mentions the possibility of decided vesical symptoms, with scanty urine and pain in passing it, and the danger of deep inflammation and suppuration of the perirectal

*Diseases of the Rectum and Anus, Fourth Edition, p. 187.

cellular tissues. His concluding remarks upon this aspect of the subject are:

"—and all the patient actually gains in the most favorable cases is the avoidance of a safe operation which he fears, while he submits to an uncertain one which he does not fear because of his ignorance, together with a few days of liberty during which he would be better off in his room." *

It is not to be supposed that all or any of these untoward results invariably follow the injection treatment. In fact it will frequently give perfect satisfaction to both patient and operator, but the only cases I can conceive in which it would be advisable to resort to it are such as for valid reasons will not permit of the radical operation. It is no longer a question of experimentation. Were there no other objection to this treatment, the single one that it is not curative is sufficient to condemn both the method and those who habitually practise it.

(8) Excision. Though advocated and practised by some of the most renowned surgeons of both ancient and modern times, this method of treating internal hemorrhoids is the most dangerous in the entire list of operative procedures. At the same time it is perhaps the easiest of execution. The danger consists in the great liability to hemorrhage and the extreme difficulty of controlling it. To minimize this danger many innovations in technic have been introduced from time to time, such as passing a needle deeply through the base of the tumor to prevent retraction after excision, endeavoring to ligate the vessels separately as encountered, etc. None of these is to be relied upon, and in spite of the resources of modern surgery, he is a bold and reckless operator who will undertake the removal of internal hemorrhoids without first providing adequately and absolutely against danger from hemorrhage. The operation known as Whitehead's belongs in this class. It is based upon the pathologic idea that the disease is not limited to the tumors, but involves the entire hemorrhoid plexus. Hence it contemplates the removal of the whole pile-bearing area. This is effected by making a circular incision at the margin of the anus and dissecting the mucous membrane up to the required height. The proper amount is then cut off and the proximal end is drawn down and sutured accurately to the skin at the site of the original incision. This is certainly a radical operation. It is equally certainly not often justifiable. The pathologic

* Ibid., p. 189.

idea upon which it rests is doubtless the correct one, a cure. The dangers of hemorrhage and anal stricture that attend the operation are by no means inconsiderable; and the impairment of function inevitably resulting from obliteration of the pecten, or sense-organ of Stroud, is alone an objection of sufficient importance to raise grave doubts as to whether it should ever be resorted to. The so-called "American operation," about which much noise is made in certain quarters, is but a modification of Whitehead's procedure, differing from it in no essential respect, having no advantage over it, and open to the same objections.

Of the two remaining methods (8) and (9) removal by clamp and cautery, very much has been said and written. These are the great rivals for the favor of the American profession, each having its points of merit and advocates of recognized authority to sustain them. The principles involved in both operations are as old as medical history, and as perfected and practised to-day both have records almost, if not quite, unprecedented in surgery as to number of cases and successful results. The question of superiority, then, cannot be settled by appeal to statistics, the mortality under either method in the hands of the competent operator being practically nil. The pronounced difference of opinion as to their comparative value is to be explained upon the ground of individual preference based on personal experience; but it has seemed to me, viewing the matter without prejudice and without regard to my personal preference, that the ligature operation has several points of distinct advantage, namely, its more simple technic and, when properly performed, entire freedom from danger of secondary hemorrhage. No intricate apparatus, demanding the attention of an extra assistant, is required, and the cumbersome clamp is replaced by a simple silken cord. Freedom from danger of hemorrhage, however, is the more important item; and argument is scarcely needed to substantiate the claim that there is far less liability to this accident when the vessels are guarded by a well-applied ligature than when they are closed merely by a thin crust of seared tissue. It would seem, even to the most casual observer, that the profession had long since passed judgment as to the relative merits of the two modes of hemostasis. If the cautery had been found the safer and better, its comparative ease of application would cause it to be used far oftener than it is in all forms of surgical work; for I contend that the main purpose of cautery or ligature is the same in

any case, whether the operation be the removal of internal hemorrhoids or hysterectomy, *i. e.*, the prevention of hemorrhage. In hospital work, where a skilled physician or nurse is in constant attendance, this danger is of course reduced to a minimum; but when the operation is performed in private houses, as it is in the great majority of instances, at least by the members of this Association, the surgeon does well to select that method that will enable him to leave his patient with the greatest assurances of security. It is claimed by its advocate that the clamp-and-cautery method possesses certain peculiar advantages, notably, less after-pain, fewer occasions for resort to the catheter, and a somewhat more speedy convalescence; but the fact is that when the ligature operation is properly performed such advantages do not obtain; and, even if admitted, they could only be rightly regarded as minor points in comparison with the safety of the patient.

The primary and concluding steps of the two operations are identical. The patient having been thoroughly prepared, anesthetized and drawn well to the edge of the table (preferably in the lithotomy-position), the sphincters are cautiously but completely divulsed, when, if not already prolapsed, the tumors will immediately come into view. Beginning below, so that the field will not be obscured by blood, each pile is caught by a volsella or other forceps and lifted out from the gut-wall. Then, with curved scissors, its base is dissected up from the anal aspect for a distance varying with the size of the tumor. This can be done with perfect safety, as the only blood vessels of importance are those connected with the superior hemorrhoidal artery and enter from above. For this reason care should always be taken not to encroach with the dissection upon the mucosa connective tissue on the proximal side of the growth. At this point the similarity of technic ceases. If the clamp is to be used, it is adjusted transeversely to the bowel, with one blade fitting accurately into the sulcus made by the scissors, and by means of the thumbscrew tightly compressed. Then, a portion of the tumor outside the grasp of the clamp is removed with knife or scissors, and the cautery at a dull-red heat is applied until the remainder is well charred. The instrument is then slowly loosened, but left in place until it is certain that no vessel will begin to spout. In case the other method is adopted, a strong silk ligature, such as is used for pedicles in abdominal work, is fitted into the dissected furrow and tied with sufficient force to shut on entirely the circularion, and so as

to bring the knot upon the sound mucous membrane above. When the tumor is of large size it is advisable, after the dissection is complete, to bisect the remainder of the base with a curved needle carrying a double ligature and tie each half separately, previously so manipulating the two ligatures as to lock them at the center. The larger portion of the tumor is then cut away, special care being taken to leave enough to prevent the ligature from slipping. Here the technic of the two methods again becomes identical. The stumps are well dusted with iodoform and returned within the bowel, gauze is packed lightly into the anal canal, and a generous pad of absorbent cotton is applied and retained with a T-bandage snugly adjusted.

The after-treatment is simple. An opiate may be required for the first twelve hours and the catheter may have to be used for several days. Not later than the fourth day, preferably on the third, a laxative should be administered, and a copious enema of warm water, followed by an ounce or so of oil, given when a movement is felt to be impending. The subsequent dressings are similar to the first, and, like the operation itself, should always be made with strict antiseptic precautions. The ligatures will come away of their own accord in from five to ten days, and under either plan of treatment recovery should be complete within two weeks. With reference to the ligature operation, strict observance of the following points will enable the objections urged against it to be largely overcome; (1) The divulsion of the sphincter should be so thoroughly done that the muscle will be completely at rest for the first few days: (2) the preliminary dissection should be carried to the highest point compatible with safety. As is well known, the parts above the anal canal are but very slightly sensitive, and, in addition to marked lessening of the pain, the time required for the ligatures to become detached is greatly shortened by this means; (3) the material of which the ligature is composed should be soft-twisted, not braided, silk, so that it will excite only a minimum of irritation. For the same reason the knot should be made to rest upon the sound tissue above.

In my more recent experience, using this method exclusively, I have had no case in which pain has been a feature, and the results have been so uniformly satisfactory as to leave nothing to be desired.

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EDITORIAL.

THE ALUMNI MEETING.

The annual meeting of the Alumni Association of the Medical Department of the University of Nashville will be held in the College Auditorium on Thursday, March 30, 1899, assembling at 10 o'clock. The very efficient work of the Secretary, Dr. W. G. Frierson, has resulted in the following interesting program :

Thursday, Morning Session—Organization, address of welcome, reports of committees and reception of new members.

Afternoon Session—Scientific papers and discussions.

Friday Morning—Papers and discussions continued.

Friday Afternoon—Address of the President, and election of officers.

Friday Evening, 8 p.m.—Attendance at commencement.

AWARDING OF PRIZES FOR ESSAYS

will take place at the commencement.

There have been a number of entries for the prize essays, and a large attendance and most interesting discussions are expected.

A FRAUD REBUKED.

The Tri-State Medical Association of Mississippi, Arkansas and Tennessee, at its regular annual meeting held in Memphis, December 20, 21 and 22, 1898, adopted the following resolutions:

"Whereas, the medical laws of the various States have been so perverted by political influences as to give legislative sanction to grotesque, ignorant and dangerous sects of pretenders and charlatans; and,

Whereas, the privileges granted to one of the most outrageous aberrations, namely, the so-called Osteopathy, constitute a disgrace to the States in which the "osteopathists" are legally intrenched; and,

Whereas, a certain William Smith, Osteopathist, having been roundly denounced, together with his sect, by Parke, Davis & Co. and the Medical Age, now brings suit against both for $25,000 damages; therefore,

Be it declared the sentiment of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee, that Parke, Davis & Co. and the Medical Age are entitled to the sympathy of its members and of all practitioners; that we wish and expect them to enjoy a complete triumph in repelling this legal assault; and that wheresoever a powerful house takes a bold stand in opposition to quackery it promotes the interests of legitimate and honorable medicine and the welfare of humanity."

A powerful medical organization is doing the right thing when it lifts up its voice in protest against fraud and injustice, but its duty does not stop here. Its members should not content themselves with passing resolutions, but should

remember that each of them has influence in his own community and should use that influence to assist in remedying a state of affairs which permits illegal methods to be practiced openly, to the great harm of the people.

A VALUABLE BOOK.

Dr. S. J. Gant, through his publishers, F. A. Davis & Co., of Philadelphia, has just given to the profession probably one of the most useful works on Diseases of the Rectum and Anus that we possess. It is not a book that will be of great value to teachers of medicine; it is too barren of theory and history to appeal to school men. It is essentially a treatise for the busy practitioner who wants a work that will help him over the rough places that he must encounter in his daily work. The text is good, the descriptions comprehensive and the illustrations clear. It is a work to lie upon the desk ready at hand to be opened at any part and at any time with the assurance that the eye and the brain, whether tired or not, will receive impressions interesting and far from fatigueing. At the present time, when almost every portion of the human body and every disease to which it is heir has been written about again and again from every conceivable standpoint, the tendency of authors seems to be in the direction of profoundness. In many instances their efforts produce obscurity to their readers, who, belonging to the great class known as general practitioners, have been unable to give attention to the little details of a specialty that are essential in order that these books may be read with pleasure and profit. Dr. Gant's work comes as a ray of sunlight in its simplicity and clearness. The general practitioner requires just such works as this upon all subjects. There is room for them and we hope to see more of them.

OBSTETRICS is a new monthly which made its appearance in January of this year. It presents in this first number

sixty pages of valuable matter—original contributions, abstracts, editorials, reviews and the first installment of a work on "Physical Diagnosis in Obstetrics," which is to be continued throughout the year and is a most interesting feature. This is by the editor, Dr. Edward A. Ayers of New York, who is also the professor of obstetrics in the New York Polyclinic. The Van Publishing Company gets it out in a severely plain style, but on good paper and in clear type. The price is $2.00 a year and it is worth double the money.

Messrs. Merck & Co. have begun Merck's Archives as a forty-four page monthly devoted to materia medica. Its contents are valuable and well presented, and the scientific rather than the mercantile aspects are kept well in the foreground, and for this we conceive the publishers are entitled to considerable credit.

OBITUARY.

A LOSS TO THE CLASS OF '99.

A member of the medical class of the University of Nashville about to graduate, Mr. George Ely Speck, of Livingston, Tenn., was called to the eternal sleep on March 7, 1899, succumbing to a severe pneumonia. He had been ill for a few days only, and had been the recipient of every possible attention on the part of the faculty and his classmates. When his brother reached his bedside, he was at once removed to the City Hospital, occupying a private room, and attended closely by Professors Wood and Crockett.

He was a pupil of Dr. M. B. Capps, of Livingston, and was about to complete his medical course, being within two months of graduation. With both faculty and students he was deservedly popular. The entire school escorted the remains to the depot, and the graduating class adopted the following resolutions:

IN MEMORIAM.

In the last eager press for the final goal of our college course, the class of '99 of the Medical Department of the University of Nashville was checked by the hand of death,

and pauses to honor the memory of George Ely Speck, who was called from our midst on Wednesday, March 7.

From an old and widely known family, he goes in the flush of young manhood, leaving a father, mother, brothers and sisters to mourn their loss.

The first twenty years of his life were passed at the family home at Livingston, Tenn., where he attended Overton Academy and where he was a member of the Baptist Church. An exemplary Christian character, he has left the impress of a pure and upright life upon all who knew him. His illness was short and severe, bringing death in just five days.

On the evening of March 7 the class adopted the following resolutions:

Whereas, it has pleased our Heavenly Father to remove from us our brother and fellow student, George Ely Speck; therefore,

Resolved, that we, the class of '99, in loving remembrance, express to his bereaved family our heartfelt sympathy in the loss of this loving son and brother; and,

Resolved, that we as friends express our deep sorrow and recognize the hand of God reminding us that time is but a school for eternity; and,

Resolved, that these resolutions be published in the Banner and in the MEDICAL AND SURGICAL BULLETIN and a transcribed copy be sent to the family.

WM. KELLY,
MISS VENIE J. LEE,
S. H. LANDRUM,
Committee.

SECTION ON MEDICINE.

UNDER CHARGE OF W. L. NICHOL, M.D.,

PROFESSOR OF DISEASES OF THE CHEST, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; AND

E. G. WOOD, M.D., C.M.,

PROFESSOR OF PRACTICE OF MEDICINE AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF THE BRITISH MEDICAL ASSOCIATION, ETC., ETC.

"TIPS" FOR PRACTITIONERS.

Dr. William Murrell, of the Westminster Hospital, London (Medical Brief, January), in an article on "The American Physician in London," says that he endeavors to impress upon his students the importance of—

1. The value of small doses of tincture of aconite, frequently repeated, in the treatment of amygdalitis and in the initial stage of febrile diseases.

2. The value of painting the chest and back with liquor iodi fortis—diluted, if necessary, with an equal quantity of the tincture—in all cases attended with cough.

3. The value of a pill of exsiccated ferrous sulphate in conjunction with the administration of purgatives in the treatment of anæmia.

4. The value of grain doses of gray powder with an equal quantity of Dover's powder from three to six times a day in the treatment of syphilis.

5. The value of large doses of the iodides in the treatment of tertiary syphilis.

6. The value of large doses of bromide potassium in the treatment of the "heats and flushes" and other symptoms from which women suffer about the time of the menopause.

7. The value of large doses of quinine in the treatment of supraorbital neuralgia, and in the periodical febrile disturbances from which old malarial patients suffer.

8. The value of five grains of butyl-chloral-hydrate with one two-hundredth of a grain of gelsemin in neuralgia of the fifth nerve.

9. The value of small doses of a saturated solution of camphor in alcohol in the treatment of autumnal or choleraic diarrhœa.

10. The value of small doses of perchloride of mercury in the treatment of infantile diarrhœa when the stools are green, slimy and offensive.

11. The value of sulphide of calcium in doses of a tenth of a grain in the treatment of boils, carbuncles and abscesses.

12. The value of nitroglycerin and nitrite of amyl in the treatment of angina pectoris and allied conditions.

13. The value of alcohol in the treatment of fevers.

14. The value of flying blisters in typhoidal conditions.—New York Medical Journal.

THE INFLUENCE OF BAROMETRICAL PRESSURE ON DISEASE.

The Clinique for September 15th quotes the following from a paper by Dr. T. Wesley Burwood published in the Monthly Homœpathic Review of London. We reproduce it because we ourselves have more than once been engaged on a similar train of thought, and are satisfied that a careful study of barometrical pressure in relation to the ups and downs of disease, especially in chronic cases, by physicians would elucidate in time some very important factors, and would, moreover, give the physician material assistance in dealing with many peculiar cases. Dr. Burwood says:

"Toward the end of the month of January, 1882, I was brought face to face with a puzzle which gave me much personal chagrin, though it eventually has proved a source of much satisfaction, as it opened up a line of thought which to me has been very useful.

"I had been in regular attendance on a gentleman whose name is well known. He had been my patient off and on for several years for trivial ailments, and I flattered myself I knew everything it was possible to know about him; he had been a most healthy man, never having had a serious illness since childhood. His habits were those of an English gentleman, and until a few months before his death he might have been seen on horseback in "The Row" every morning of his life when in London. He, however, toward the end showed signs of oedema in the feet due to heart trouble. There was no valvular lesion, though latterly marked dilatation was evident. There was no albumin in his urine, and

his present condition might be summed up as due to old age (eighty-four).

"I had seen him one day about 6 P.M.; he was jolly and jocular, with uothing to indicate anything like a sudden collapse; his respiration was normal and his pulse and temperature satisfactory. To my surprise, when I called about noon the next day, I found my patient dead!

"On inquiring of the nurse, who was a woman of experience, what had happened, she said: 'He went to sleep as usual between 10 P.M. and 11, but woke soon after 1, complaining of breathlessness, his heart beating very fast and irregularly; this went on until gradually he became pulseless, and he breathed his last at 6 A. M., five or six hours after the first awaking."

Dr. Burwood noticed that a terrible gale had burst about midnight, the glass dropping from 30.2 to 28.5 before the gale was over, and this coincided with the period of the patient's sudden attack. Dr. Burwood further points out that the barometer ranges through fully two inches, and that when it is very high every square foot of the earth's surface supports about a hundred and forty pounds more than when it is low, and he conntinues:

"What, then, happened on this sudden fall taking place? My explanation is—my patient's heart had been beating strenuously for some weeks against all this extra pressure, and when this pressure was suddenly taken off, like a horse going up hill with a heavy load behind him, the traces suddenly bseaking, the horse gallops away free—the heart's action was increased, the overloaded heart and lungs became oppressed, a clot was gradually formed in the cardiac cavities, and soon life became extinct.

"I have during all these years of observation seen very many cases of one kind or another so affected, and I can assert, without fear of contradiction, that any one interested in this subject will find notices of sudden death in the obituary of the morning papers after a sudden rapidly falling of the glass accompanied by a gale of wind or a hurricane; and many of these are cases which, no doubt, have been a puzzle to the medical men in attendance, when their patients have suddenly passed away without any apparent cause."

Here, then, is a practical observation the accuracy of which can be easily verified by each physician for himself by a little methodical observation of his newspaper and the barometer.

Night and early morning aggravations of disease and cases of sudden death at those times of day are accounted for in the same way.

"Captain Greenstreet, R. N. R., a man of great intelligence, who made observations extending over many years and in every part of the globe, showed me the automatic readings from his aneroid, and said 'that it mattered not in what part of the world he was, there was always a slight, and sometimes a great, falling in the mercury between 3 and 5 A. M.,' and my theory is, I think, substantiated thereby."

Concerning a "meteorological susceptibility" of certain patients, the following is a good illustration:

"My friend, Dr. Reed Hill, when he was living with me, was so aware of this fact, that if he was disturbed in the night by a gale of wind, he would say at breakfast, "We shall get a telegram directly from Mrs. So and So,' and surely enough before noon that telegram came; or I would say, 'We must look after Mr. So and So's heart while this gale continues,' and we invariably found it necessary, for the patient had had restless nights, with wakefulness and palpitation that nothing could account for."

The influence of this same cause in giving rise to diarrhœa, a condition that is often induced by the rapid transit of our patients from a lower to a higher altitude, as well as by sudden storms, is shown, says the Clinique, in this paragraph:

"In the spring of 1887 there were several letters in the Lancet from different medical men, asking if any of their confreres could account for so many calls to patients suffering from diarrhœa, the attacks coming on on a certain Saturday. The same inquiry was repeated in the next week's issue. I may say, in passing, I looked carefully, and found no reply was ever sent.

"On this same Saturday, when I went into luncheon, I found a telegram from a patient I had recently taken to Brighton, and before the meal was over I had another from a patient in Essex, and a third in Acton, and a fourth in Hanwell, all of them with sudden attacks of diarrhœa. For the next few days I was busy with fresh cases, all of which dated their ailments from about mid-day on Saturday; some were men, some were women, all under different conditions as to health, locality and age. Nothing in the shape of indiscretion in diet could account for it. For three weeks previous the weather had been anti-cyclonic, the barometer standing

from 30.2 to 30.6. On the Friday evening the glass showed signs of downward movement, and by mid-day on Saturday a gale of wind had come into activity, and with it quickened action of circulation, more blood was driven through their susceptible livers, more bile thrown out, peristaltic movement increased."

Other diseases that are affected or induced by the sudden lowering of atmospheric pressure are purpura hœmorrhagica, epilepsy and diphtheria. The Clinique can not forbear from quoting this remarkable case:

"A lady nearly sixty years of age has during the last five or six years been subject to purpura. She always knows when she is developing purpuric spots by the local pains, and these attacks are always more present during the period of a rapidly falling glass. On one occasion she suddenly became deaf in one ear during a gale of wind, and when I saw her I diagnosticated hemorrhage in the tympanum, which was confirmed by a West End aurist of great repute. In the summer of that year she took a house in an elevated position in the lake district, and almost as soon as she arrived she suffered with palpitation of the heart and fresh accessions of spots. When she became accustomed to the elevation her cardiac action became regular, and the remaining part of the visit was happy and free from unpleasant symptoms, unless a gale of wind happened to arise."

We would say that here is a field for collective scientific investigation in which the humblest, careful, general practitioner can add his quota of observation to medical science equally with his more highly placed colleagues.—New York Medical Journal.

SECTION ON NEUROLOGY.

UNDER CHARGE OF T. L. MADDIN, M.D.,

PROFESSOR OF NERVOUS DISEASES AND GENERAL PATHOLOGY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF AMERICAN MEDICAL ASSOCIATION, ETC., ETC.

SLEEP AND WHAT IT DOES FOR US.

A brief but striking statement of the functions and curative value of sleep is given by Dr. Evart in his recent Harveian lecture, from which we give below some of the most interesting paragraphs. Of the absolute necessity for sleep as distinguished from mere rest, Dr. Evart says:

No amount of simply rest of the body can do duty for sleep. Though mere repose may partly satisfy the needs of our vegetable life, sleep alone, that profound sleep which the poet has likened to death, can make good the wear and tear of the higher nervous centers. . . . It is the privilege of some to command sleep at any moment, but it is probably exceptional to combine this facility with that of remaining awake at will—a dangerous power when it is abused. Some possess the opposite peculiarity and are subject to the invincible desire for sleep after a definite expenditure of nerve energy. By this they are protected against exhaustion.

Interesting psychological speculations and some practical notions also are suggested by the remarkable relief and freshness which they derive from even a short period of sleep. Much tissue repair cannot have taken place during those few minutes of profound sleep which will restore a jaded man to full activity. The energy which he subsequently develops must have been there when he fell asleep, yet it was unavoidable. It is therefore clear that these brief and irresistible slumbers are essentially different from the long sleep of the night, and that we might turn both the short and the long sleep to a separate therapeutic account. . . .

The various degrees of sleep range from coma, where both the nerve cells and the conducting fibers are absolutely impervious, to the light sleep of those whose irritable and quick nerve protoplasm is immediately thrown by the touch of a feather or by the slightest sound into a state which means

open conduction and full consciousness. The disordered cerebration of delirium and of dreams almost suggest the possibility that orderly communications may pass between local groups of cells, and this might perhaps explain the good counsel which is bred of the night. But these incubations would be merely local settlings of the balance of the day between cells disciplined to collaboration, and would be during sound sleep incapable of a wide diffusion throughout the mental sphere.

Sleep then would seem to have two offices, both fulfilled in the long sleep of the night, which it is our usual endeavor to secure for our patients—viz., that of favoring the slow anabolic changes of repair and that of interrupting consciousness by uncoupling the chains of neurons or conceivably of relaxing protoplasmic tension or tone. This relief of tension is, it would seem, the only office performed by the shorter spells of sleep, and therefore the two forms of sleep suggest two therapeutic objects. . . . The systematic prolongation of sleep for the cure of disease is one of the opportunities hitherto little used. . . .

In various nervous affections, including the mental, its renewed trial, combined with suitable methods of feeding, might lead to encouraging results. Better suited, perhaps, to our every-day needs is a systematic resort to the shorter sleep. Like the light installments of food which restore the lost function of appetite and digestion, short sleep in the day may be essential to the cure of nocturnal insomnia. Our growing wealth in hypnotics warrants the hope that a suitable agent may yet be found which in that direction would minister to the health of the invalid and might command the luxury of sleep at any opportune time for the convenience of the worker.

Body rest as a symptomatic therapeutic agent has long found its place in our modern treatment for patients whom weakness alone, in the absence of medical advice, would not have compelled to take to their bed. . . . Its methodical employment forms an essential part of the Weir Mitchel plan, but its most striking instance is that of the open air rest cure for phthisis, which within quite recent years has largely replaced at foreign sanatoria the previous method by muscular exercise. The pendulum of medical opinion has swung toward the principle of physiological rest.—The Literary Digest, January 21, 1899.

REST AND PAIN BY HILTON.

The therapeutics of sleep, rest and quiet, is forcibly stated by this author in tired nature, in health and disease, both medical and surgical. He says:

"I have made these observations for the purpose of showing the original promptings of nature to man for the alleviation of what must have befallen him in his altered condition. Pain was made the prime agent. Under injury pain compelled him to seek for rest. Every deviation from this necessary state of rest brought with it, through pain, the admonition that he was straying from the condition necessarily essential to his restoration. . . .

"Growth is the antitype of repair, prefiguring the physiological capabilities of existing structures to repair themselves. I may say that so intimate is the association between rest and growth as to make them appear to stand in the relation of cause and effect. Accurate observation of the animal and vegetable world certainly reveals their perpetual co-existence; and growth, as a rule, seems to proceed, *pari passu*, with physiological rest.'

"Mr. Ward says: 'All plants require rest, and obtain it in some countries by the rigor of winter, in others by the scorching heat of summer. Cultivators often fail in their attempts to grow certain plants from the want of attention to this essential point. Thus, most Alpine plants, which enjoy an unbroken rest under the snow for several months, are very difficult culture in our mild and varying winters. The winter of 1850-51 was ushered in with heavy falls of snow, with which I filled my Alpine case, giving the plants a perfect rest (sleep) of three or four months and with a most satisfactory result. . . . Many of these beautiful plants would, I am convinced, succeed well if kept for five or six months in an ice house. Plants in hot countries have their periods of rest (sleep) in the dry season. In Egypt the blue water lily obtains rest in a curious way. This plant abounds in several of the canals of Alexandria, which at certain seasons become dry; and the beds of these canals, which quickly become as hard as bricks by the action of the sun, are then used as carriage roads. When the water is again admitted the plant resumes its growth with redoubled vigor.'

"Our great master in physiology, John Hunter, has not left this field unexplored. . . . 'Most plants,' says he, 'have their period of growth and period of rest. Some close their

leaves, others their flowers, at particular hours of the day or night; and with such regularity does this period of rest (sleep) take place that more than one vegetable physiologist has proposed to construct from them a floral clock.'

"We all know how eagerly rest is sought for by the lower animals, especially in periods of suffering from injury or disease—how they endeavor to escape from curiosity of man in order that the injury may be the more speedily repaired. . . A homely illustration may be found in the fact that in infancy the child who sleeps much mostly thrives. *Mutatis mutandis*, the observation is equally true that the wakeful, restless child seldom displays the evidence of active nutrition. Doubtless all will admit that in infancy development is in its highest state of activity, and that the infant passes the greater portion of its life in rest.

"Growth—the renewal of some parts and the fresh development of others—seems thus to claim sleep and rest as its helpmates. Thus far I have endeavored very briefly to point out out the relation of rest (sleep) to growth. I would now say a few words regarding the relation of rest (sleep) to repair. Repair is but the repetition of growth. The same elements, the same kindred condition are necessary to the same results. Rest is the necessary antecedent to the healthy accomplishment of both repair and growth. This surely is the natural suggestion of a means toward an end which should never be lost sight of by the physician or surgeon. For example, children who are ill and loose their rest waste very rapidly, more rapidly in proportion than older people; but as soon as the morbid condition subsides and rest asserts its power, the recovery or repair becomes extremely active, accompanied by an increased tendency to sleep, sleep supplying the great desideratum previously required. . . . I may adduce this additional remark regarding the beneficial influence of rest, that those persons who drop off to sleep quickly, anyhow and anywhere, and sleep soundly, undisturbed by active dreaming, are *caeteris paribus*, capable of sustaining a greater amount of mental and corporeal exertion than those who find it difficult 'to get off to sleep,' who sleep lightly and, dreaming much, awake but little refreshed."

SECTION ON ABDOMINAL SURGERY AND DISEASES OF WOMEN.

UNDER CHARGE OF M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

MECHANICAL SUPPORT FOR UTERINE DEVIATIONS.

Dr. E. C. Dudley, of Chicago, in the American Gynecological and Obstetrical Journal, says:

If the cervix uteri be normally placed within an inch of the hollow of the sacrum, the body of the uterus will, in the absence of complications, usually take care of itself. Descent of the uterus is associated with both backward and forward displacement of the uterus and must be considered in the mechanical treatment of either of those conditions.

The bladder irritation associated with extreme anteposition of the uterus, is due to the descent and not to the forward displacement. Pessaries are contra-indicated until the uterus has been replaced. If relief is not obtained by an investment which holds the cervix in the hollow of the scrotum, mechanical support is usually contra-indicated. The intra-uterine stem is rarely useful, often injurious, always dangerous. A thorough understanding of the indications and contra indications to the use of pessaries is essential and they will be useful, useless or injurious depending upon the knowledge plus the mechanical skill and judgment of the physician. The misguided practitioner should bear the burden of his own fault; the pessary should not be made to bear it for him.

Dr. T. J. Watkins (Am. Gyn. and Obst. Jour.) in discussing displacement of the uterus, states:

The Albert Smith and Emmet pessaries fulfil about all the requirements of a pessary for the mechanical treatment of uterine displacements. The pessaries that have been designed to rest in the anterior fornix, to correct anteflexions and anteversions, etc., are, as a rule, useless or harmful. Intra-uterine pessaries are dangerous to use on account of liability to infection. Intra-uterine pessaries do sometimes relieve dysmenorrhoea, but it is questionable if they are ever of

sufficient value to justify one in assuming the risk of infection which attends their use.

Inflated pessaries are of but little use, as they soon collapse. Soft rubber pessaries soon become offensive, covered with concretions, and irritate the vaginal wall.

The principle of the action of the pessary is to keep the cervix in or near its normal location (about one inch from the sacrum, and the external os about 2½ inches below the promontory of the sacrum). With the cervix in this location, gravity and intra-abdominal pressure will insure anterior position of the body of the uterus, if mobile, when the woman is in an upright position. With the cervix in normal location there is not sufficient space for the body of the uterus to get between the cervix and sacrum.

Whether a patient shall continue to wear a pessary indefinitely or submit to operation for cure is a question for her to determine.

POST-PARTUM MANAGEMENT OF UTERINE DISPLACEMENTS.

Eugene Coleman Savidge, M.D., in the New York Medical Journal, says:

1. All post-partum displacements of the uterus are of the same general nature.

2. The question of their prevention is one of the gravest importance, having a bearing upon longevity itself.

3. In some few cases, "no matter what you do," the womb will obstinately remain displaced.

4. Trusting any post-partum case to nature is the wrong thing to do.

5. Doing the right thing will obviate most of the displacements and rob those that persist of their danger.

This malady (of uterine displacement) is the most prevalent ill among women. It can largely be prevented when both laity and profession appreciate its frequency, its gravity, our limitations in coping with it, and the ease with which it can be prevented in most cases.

Trusting post-partum cases to nature is the wrong thing to do. And, moreover, "meddlesome midwifery"—so-called—is the only midwifery a scientific man should deign to practice.

He advises:

1. Termination of the second stage of labor before the

muscles forming on the pelvic floor have been permanently deranged by over-stretching.

2. Keeping the woman from going about until involution is complete.

3. Closing carefully all tears in the pelvic floor or perineal body.

4. Supporting the uterus in position by pessaries or tampons when it is heavy and tends to displacement.

5. To administer, in proper doses, iron, ergot and digitalis when subinvolution exists.

SECTION ON OBSTETRICS.

UNDER CHARGE OF S. S. CROCKETT, M.D.,

PROFESSOR OF OBSTETRICS, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

EXPERT TESTIMONY.

In the trial of the case of the State of Tennessee against Mrs. Nora Woodruff, recently had in the Criminal Court of Davidson County, charged with the murder of her six-year-old step-son, and which resulted in her conviction of murder in the first degree and life sentence in the penitentiary, one of the important questions in that case was the cause of death of the child.

This child was found twelve hours after last seen alive in a pond. A post-mortem examination revealed the fact that it had bruises upon its throat to such an extent as to cause the blood both in the veins and arteries to coagulate. The question was whether or not the child's death was caused by drowning, or whether it was killed by being choked to death and then thrown in the pond to conceal the crime. It further appeared in the proof that when the child's body was taken from the water it was subjected to such manipulations as are usually resorted to in order to resuscitate drowned persons, and as a result of this about one-half pint of water came from the child's mouth. A number of physicians were called as experts upon the question as to the cause of death, or in other words, whether the child was killed by being thrown into the pond or was already dead when thrown in. Judge J. M. Anderson, who tried the case, delivered the fol-

lowing charge upon the expert witnesses in the case, and on account of its value to the medical profession, and the suggestions therein contained to the medical experts, is here reproduced as follows:

"Upon this question, and to aid you in the determination, I have admitted for your consideration the opinion of Dr. Crittenden, that the child was killed before being thrown in the pond; also the testimony of Drs. Crockett and Neal, who testify that the mere fact that water in no considerable quantity could be made to run out of the body by its manipulation was not conclusive of the fact that death was not produced by drowning, and that the only way this could be determined, if at all, would be by post-mortem examination of the lungs, and the testimony of Dr. Crockett as to the cause of the coagulated blood claimed to have been found in the throat, and the probable effect of such injury to the throat as was described to him in the questions propounded. The last two witnesses, Drs. Crockett and Neal, testify as to the facts lying within the knowledge of medical science, and give their opinions purely upon the facts assumed to be true and contained in the questions asked them, neither of them professing any knowlenge of the case further than imparted to them upon the witness stand.

Dr. Crittenden testified not only as to the appearance of the body when found, and the discoveries made upon the post-mortem examination, but in addition to these, of which he claims to have personal knowledge, and upon them as a basis, he has been permitted to give his opinion as to the cause of death. His testimony as to all matters of fact is to be considered and weighed by you as is the testimony of all other witnesses in the case. In giving his opinion as to the cause of death he testifies as an expert, and while expert testimony is some times the only means of arriving at the truth of a matter under judicial investigation, yet to it these observations apply, and should be borne in mind, that it often invades the field of speculation and is beset with pitfalls and uncertainties, and should always be received by the jury with great caution. Aside from the degree of the expert's knowledge and the extent of his learning upon the subject, he is called to give his opinion, and the degree of care he may have exercised in preparing that opinion, and his interest or bias in the matter under consideration, which should always be considered by the jury, you should also remember that it must also very largely depend for its value upon the truths

of the facts upon which it is predicated, and in this connection I charge you that an expert opinion, if based upon a state of facts that are true, has given to it no additional weight as such, because the expert happens to have personal knowledge of the facts upon which his opinion is predicated.

Experts are often partisans, sometimes differ in the degree of their learning and the extent of their feeling and interest in the result of the case, and where they give conflicting opinions due regard should be had to these considerations by the jury when weighing their respective opinions. Whether or not there is conflict in the opinions of the expert witnesses in this case, and if so, which of these conflicting opinions are the most reliable, are questions for your determination, and whether you find these opinions conflicting or consistent, no opinion based upon a state of facts not established by the proof should be given any weight by you. Even when based upon facts proven in the case you are not bound by it. It is at last a question for you to determine for yourself from the whole proof, giving to the expert testimony such weight, and no more than you think it deserves, when considered in the light shed upon it by all the facts and circumstances of the case.

SECTION ON MEDICAL CHEMISTRY.

UNDER CHARGE OF J. M. KING, B.S., M.D.,

PROFESSOR OF CHEMISTRY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; CHEMIST TO STATE OF TENNESSEE.

INFLUENCE OF CARBOHYDRATES UPON DESTRUCTION OF PROTEIDS.

This question was first investigated by determining the amount of nitrogen in the urine of infants when fed upon diluted cows' milk alone, and when maltose was added to their nourishment. The amount of nitrogen varied from 1,000 to about 1,150 mg., in the instance which is given in the table. When 60 gm. of maltose were added to the daily amount of milk the nitrogen fell progressively, and within 4 days had dropped to 500 mg., and when the maltose was increased to 100 gm. there was a diminution of the nitroges in the urine to so low as 380 mg.; when the maltose was omitted the ex-

cretion of nitrogen increased at once, reaching about the point first mentioned. Phosphoric acid was also estimated, and it was found that this followed the same course as the nitrogen, decreasing to less than one-third of its usual amount when maltose was added to the milk. Several other experiments are then detailed in which the amount of nitrogen given in the nourishment and the amount excreted in the urine and feces were determined. When milk alone was given the absortion was slightly over 93 per cent., though but 5.8 per cent. was retained; when 75 gm. of maltose was was added to the daily amount of milk the absorption was slightly less, about 88 per cent., but 23.5 per cent. of the nitrogen was retained. This experiment was conducted with cows' milk, diluted one half. The child was 5 months old, and apparently in good health. The second experiment, with the same child, was conducted by using whole milk, thus increasing the amount of nitrogen ingested. During the first period of these experiments, in round numbers, 95 per cent. was absorbed, 12 per cent. retained; when 75 gm. of maltose was added to the milk but 91 per cent. of the nitrogen was absorbed, while 19 per cent. was retained. Other experiments were conducted upon sick children to investigate the possibility of preventing a loss of nitrogen or to decrease such loss by adding carbohydrates to the nourishment. The first was a 9 months' old child that weighed only about 9 pounds owing to a persistent gastroenteritis. In the first period the child took daily 750 c. c. of one-third cow's milk; in the second period it was given 500 c. c. daily of one-third cow's milk to which 40 gm. of maltose was added. During the first period about 93 per cent. of nitrogen was absorbed, but within a week the child lost 2.7 gm. more nitrogen than was ingested. During the second period when the maltose was given the absorption was about the same, 92.2 per cent.; but in this period the negative balance was but .2803 gm. The effect on another child that had also been the subject of gastroenteritis was investigated, and it was found that the same amounts of nourishment that were used in the last mentioned case caused the child to retain, when receiving no maltose, 7 per cent. of the nitrogen ingested, while when maltose was added the retention was 127 per cent. Keller then gives tables of work upon metabolism in infants that have been published by a number of other authors, and shows that in infants nourished at the breast the retention is very high. In one investigation it reached the astonishing figure

of 85.5 per eent. Those investigations that have been carried out with cows' milk without addition of carbohydrates have shown as a rule very low figures for retention, while those investigations in which mixtures of milk and various carbohydrates were the nourishment used, show very much greater retention. The absorption of nitrogen in almost all instances was, as in Keller's experiments, less when carbohydrates were given than when milk was used alone; but the percentage of the absorbed nitrogen that was retained was always very much higher when carbohydrates were used. It is therefore evident that it is possible to decrease nitrogen elimination or to cause a marked increase in nitrogen retention by adding carbohydrates to the nourishment.—Arthur Keller in Centralblatt fur innere Medicin, Jan. 14, 1899.

ANTITOXIC ALBUMINS.

The antitoxins in the serum are represented by the albumins; the latter can be separated from all other constituents of the serum without any loss of antitoxin, but any attempt to alter (to "denaturize") the albumins is followed by an antitoxin loss. It is at present accepted that the antitoxic albumins are contributed to the blood by such cells as are modified by the process of immunization. Hence it follows that the blood contains both antitoxically active and antitoxically inert albumins, and it is possible, in a measure, to seperate these two. The isolated antitoxic substance is an albumin, which cannot be distinguished from non-antitoxic albumin except by the sole quality of being antitoxic. Behring ingeniously compares the relationship between these two albumins to that obtaining between magnetized and nonmagnetized iron—the difference here is solely in the possession of a quality, magnetism, the nature of which is unknown. The antitoxic property is a specific quality of the albumin, which in other ways is as indifferent toward the animal body as normal blood-albumin. Tetanus antitoxin, e. g., has no other property to distinguish it from normal serum-albumin save that of neutralizing tetanus toxin. Antitoxic serum, apart from its one specific effect, has no other action on the body than an equivalent amount of similar, but nonantitoxic serum. Behring also explains in this article the manner in which he arrived at the fixation of the antitoxin used by him in his studies. One c. c. of an antitetanic serum which neutralizes 9 02 grams of tetanustoxin is equivalent to one immunity unit.—Deutsche medicinische Wochenschrift.

COLLEGE CLINICS.

GYNECOLOGY—PROF. M'GANNON.

Reported by Dr. A. Hudson.

Gentlemen: The first case to which your attention is invited is a negro woman, 19 years of age, a house servant, who comes complaining of pain, more or less severe, in the lower portion of the abdomen and of a profuse vaginal discharge. Her miseries confine her to bed.

Menstruation has been regular, usually continued four days and has always been without pain. She has never had leucorrhoea until about three weeks ago, when it came on somewhat suddenly, accompanied by a sensation of heat in the vagina, weight in the pelvis and much itching and burning about the vulva. She has never been pregnant. Her present history is good. Appetite is poor and the bowels are constipated.

We will now examine the patient. The temperature is 101. The tongue, as you see, is coated and the skin is dry. With the patient upon her back, the knees separated and the legs flexed upon the body, we are able to expose fully the vulva. It is swollen slightly, is redder than normal and its surface is moistened by secretion. As I separate the labia majora, the mucous membrane appears thickened, red, swollen and bathed with a muco-purulent secretion. The mouths of the ducts leading to the vulvo-vaginal glands are red and patulous, and pressure forces from them a drop of pus. The meatus urinarius is also red and pouting, and Skene's ducts upon pressure also give up a small quantity of pus.

Upon separating the walls of the vagina, they, with the vaginal portion of the uterus, are seen to be like the introitus vaginae—red, swollen and bathed with a muco-purulent discharge.

A severe vaginitis with extension to the vulva is undoubtedly before us.

As you well know, this disease has for its causation (1) some form of micro-organism; (2) a soil suitable for its development, a means by which it may attack the tissues.

The gonococcus of Neiser is the germ most often shown by microscopical examination to be the cause of the pathological

changes seen in cases similar to the one we have under observation. This is without doubt a case of gonorrhoeal inflammation. The tendency of the disease to extend to the uterus, through it to the fallopian tubes and to the peritoneal cavity, makes it one demanding judicious and well directed effort to stamp it out before these structures become damaged by its onward march.

The treatment must be carried out along several lines. The patient comes because she is suffering, hence that suffering must be relieved. Hot applications to the vulva and hot douches within the vagina may be sufficient, but occasionally opium in some of its forms becomes necessary before the patient's sufferings are removed. The discharge bathing the vulva causes suffering. This may be prevented by keeping the parts clean.

The disease is best stamped out by placing the patient in the knee chest position so that the folds of the vagina may be obliterated by atmospheric pressure, then painting the mucous membrane with a solution of nitrate of silver, grs. xx to the ℥i, after which a packing of iodoform gauze must be so placed that the mucous membrane of the vagina must in no part lie together. This treatment should be applied daily. The patient must be kept in bed. Usually the disease is well under control in a week.

The second case to which I shall invite your attention is sent to us for a diagnosis. Appendicitis is suspected. The patient is a woman, 24 years of age, who has never been pregnant. Menstruation has always been regular, flow lasting five to seven days, but without clots or pains. She has had for twenty-four months or longer considerable leucorrhoea. We can get but little family or personal history.

She complains at present of pain in the right side, in the lower quadrant of the abdomen, that has prevented her from working for several weeks. She does not know whether she has had any elevation of temperature or not, though her medical attendant states there has been daily slight elevation for a week. Her bowels are constipated. The symptoms then are pain in the right inguinal region and slight fever. This pain began in this region and has persisted there.

The marked symptoms of appendicitis are pain, which usually begins in the center of the abdomen and is then located in the region of the appendix; rigidity of the abdominal muscles over the site of the inflammation; tenderness in that

region; elevation of temperature, which may be slight; rapidity of pulse, and nausea and vomiting are often present.

Palpation in this case demonstrates slight rigidity of the whole lower part of the abdomen, not marked over the point of pain. There is little tenderness over the abdomen at the usual situation. There is but little, if any, fever and no history of nausea, hence we find little to make us believe inflammation of the appendix exists. The symptoms point more to a pelvic trouble, and we will proceed to examine *per vaginam* The examining finger finds fulness and tension behind and to either side of the uterus and vagina. Abdominal palpation demonstrates a mass on either side of the uterus tender upon pressure. The uterus is crowded forward against the bladder and is in the center line. The masses felt can be nothing but the fallopian tubes filled with fluid and bound firmly in the pelvis. The diagnosis is double pyosalpingitis. Operation is the best treatment.

SOCIETY MEETINGS.

MEDICAL SOCIETY STATE OF TENNESSEE.

The Medical Society of the State of Tennessee will hold its sixty-sixth annual session at Music Hall, 139 North Spruce Street, Nashville, Tenn., April 11, 12, 13, 1899. The Tulane Hotel will be headquarters and the exhibits will be made in the Assembly Room. A rate of one-half fare is assured on all railroads in the State. Certificates should be obtained by members at starting point. Members of the medical profession are cordially invited to attend.

The officers and committees are as follows:

OFFICERS.

President, T. H. Marable, M.D., Clarksville.

Vice-president for Middle Tennessee, W. C. Bilbro, M.D., Murfreesboro.

Vice-president for East Tennessee, T. W. Gallion, M.D., Dandridge.

Vice-president for West Tennessee, V. A. Biggs, M.D., Ralston Station.

Treasurer, D. E. Nelson, M.D., Chattanooga.

Secretary, W. D. Haggard, Jr., M.D., Nashville.

COMMITTEES.

Committee on Arrangements—G. C. Savage, M.D., Chairman; Richard Douglas, M.D., C. R. Atchison, M.D., L. B. Graddy, M.D., Paul F. Eve, M.D., all of Nashville.

Committee on Credentials—I. A. McSwain, M.D., Chairman, Paris; B. F. Travis, M.D., Chattanooga; Duncan Eve, M.D., Nashville; J. R. Williams, M.D., Port Royal; E. A. Neely, M.D., Memphis.

Committee on Necrology—J. S. Nowlin, M.D., Chairman, Shelbyville; A. L. Macon, M.D., Fredonia; A. W. Boyd, M.D., Chattanooga; J. A. Crook, M.D., Jackson; J. A. Witherspoon, M.D., Nashville.

Committee on Publication—W. D. Haggard, Jr., M.D., Chairman, Deering J. Roberts, M.D., S. S. Crockett, M.D., C. S. Briggs, M.D., Nashville; D. E. Nelson, M.D., Chattanooga.

Committee on Legislation—T. J. Happel, M.D., Chairman, Trenton; J. B. Cowan, M.D., Tullahoma; G. B. Thornton, M.D., Memphis; J. S. Cain, M.D., Nashville; S. R. Miller, M.D., Knoxville.

The program for this meeting as far as arranged is as follows:

Subcutaneous Rupture of Large Arteries from Contused Wounds, Dr. J. A. Crook, Jackson.

Immunity and Susceptibility, Dr. I. A. McSwain, Paris.

Abscess of the Liver, with Report of Cases, Dr. M. Goltman, Memphis.

The Hippocratic Oath, Dr. A. M. Trawick, Nashville.

Tubal Pregnancy, with Report of Cases, Dr. J. M. Black, Knoxville.

The Treatment of Acute Pelvic Inflammation in Women, Dr. H. R. Coston, Fayetteville.

The Non-operative Treatment of Appendicitis, Dr. E. L. Gleaves, Cottontown.

The Fever in the Mountains of Upper East Tennessee, Dr. H. P. Chance, Tazewell.

The Abuse of Quinine in Malarial Hematuria, Dr. J. F. Griffin, Tiptonville.

Vesical Calculus in Women, Dr. T. J. Happel, Trenton.

Typhoid Fever and Its Treatment, Dr. G. C. Morris, Savannah.

Chorea, with Report of Case Complicated with Pregnancy, Dr. T. W. Gallion, Dandridge.

The Treatment of the Effects of La Grippe on the Prostate and Bladder of Old Men, Dr. A. B. Hansard, Twinville.

Melancholia, Dr. B. W. Stone, Nashville.

Diphtheria, with Report of Cases Treated with Antitoxin, Dr. C. M. Sebastian, Martin.

A Practical Suggestion Regarding Amputations of the Foot, Dr. Jere L. Crook, Jackson.

The Duration of Gestation, Dr. S. S. Crockett, Nashville.

The Physiologic and Therapeutic Effect of Static Electricity, Dr. G. P. Edwards, Nashville.

Some Interesting Cases in Rectal Surgery, Dr. A. B. Cooke, Nashville.

Four Cases in Abdominal Surgery, with Results to Date, Dr. T. J. Crofford, Memphis.

The Medulla as a Speech Center, Dr. W. F. Rochelle, Jackson.

Puerperal Septicaemia, Dr. J. H. Preston, Humboldt.

The Treatment of Pneumonia, Dr. R. J. McFall, Cumberland City.

The Treatment of Rheumatism, Dr. C. W. Fleenor, Holston Valley.

Chronic Gastritis, Dr. W. C. Bilbro, Murfreesboro.

The Canse, the Nature, and the Treatment of Laryngitis in Singers, Dr. Richmond McKinney, Memphis.

Report of an Interesting Case of Eye Disease, Dr. J. L. Minor, Memphis.

Abdominal Pregnancy, with a Report of a Case, Dr. S. B. Fowler, Gainesboro.

Reports of Cases of Hemorrhoids Operated on, Dr. John L. Jelks, Memphis.

Sudden Deafness with Aphasia of Eight Months Duration, Dr. J. T. Herron, Jackson.

Typhoid Fever, Dr. J. R. Puryear, Weir.

The Treatment of Urethral Stricture, Dr. W. F. Glenn, Nashville.

The Motor and Sensory Areas of the Brain and Spinal Cord, and their Physiological Functions, Dr. D. R. Neil, Nashville.

Report of Cases of Appendicitis with Hematoma of the Ovary; and Supra-pubic Lithotomy in a Child, Dr. William D. Sumpter, Nashville.

Report of Unique Case of Gunshot Wound of the Abdomen, Dr. R. E. Fort, Nashville.

The Presidential Address, Dr. T. H. Marable Clarksville.

Application for membership and titles of further papers should be sent to the secretary, Dr. W. D. Haggard, Jr., Nashville.

BOOKS RECEIVED.

DISEASES OF THE EAR, NOSE AND THROAT and Their Accessory Cavities. By Seth Scott Bishop, M.D., D.C.L., LL.D., professor of diseases of the nose, throat and ear in the Illinois Medical College; professor in the Chicago Post Graduate Medical School and Hospital; surgeon to the Post Graduate Hospital, one of the editors of the Laryngoscope, etc. Second edition. Thoroughly revised and enlarged. Illustrated with 94 chromo-lithographs and 215 half-tone and photo-engravings. 6½ x 9½ inches. Pages xix–554. Extra cloth, $4 net; sheep or half-Russia, $5 net. The F. A. Davis Co., publishers, 1914–16 Cherry street, Philadelphia.

DIAGNOSIS AND TREATMENT OF DISEASES OF THE RECTUM, ANUS, and Contiguous Textures. Designed for practitioners and students. By S. G. Gant, M.D., professor of diseases of the rectum and anus, University and Woman's Medical Colleges; lecturer on intestinal diseases in the Scorritt Training School for Nurses; rectal and anal surgeon to All-Saints, German, Scorritt's Hospital for Women, and Kansas City, Ft. Scott and Memphis Railroad Hospitals, to East-side Free Dispensary, and to Children's and Orphan's Home, Kansas City, Mo.; member American Medical Association, National Association Railway Surgeons, Miss. Val. Medical, the Mo. Valley Medical, and the Mo. and Kansas State Medical Associations; of the Kansas City Academy of Medicine, Jackson County, and of the Kansas City District Med. Societies, etc., etc.

A TEXT-BOOK ON PRACTICAL OBSTETRICS. By Egbert H. Grandin, M.D., gynecologist to the Columbus Hospital; consulting gynecologist to the French Hospital; late consulting obstetrician and obstetric surgeon of the New York Maternity Hospital; fellow of the American Gynecological Society, etc. With the collaboration of George W. Jarman, M.D., gynecologist to the Cancer Hospital; instructor in gynecolo-

gy in the Medical Department of the Columbia University; late obstetric surgeon of the New York Maternity Hospital; fellow of the American Gynecological Society, etc. Second edition. Revised and enlarged. Illustrated with 64 full-page photographic plates and 86 illustration in the text, 6½ x 9½ inches. Pages xiv–461. Extra cloth, $4 net; sheep $4.75 net. The F. A. Davis Co., publishers, 1914–16 Cherry street, Philadelphia.

ON THE ORIGIN AND PROGRESS OF RENAL SURGERY—with special reference to stone in the kidney and ureter, and to the surgical treatment of calculous anuria—being the Hunterian Lectures for 1898, together with a critical examination of subparietal injuries of the ureter. By Henry Morris, M.A., M.B., Lond. F.R.C.S., senior surgeon to the Middlesex Hospital, examiner in surgery in the University of London; member of the council and chairman of the court of examiners of the Royal College of Surgeons of England, Hunterian professor of surgery and pathology Royal College of Surgeons of England; honorary member of the Medical Society of the County of New York; formerly lecturer of surgery at the Middlesex Hospital Medical School. Philadelphia, P. Blakiston's Son & Co., 1012 Walnut street, 1898.

CONSERVATIVE GYNECOLOGY AND ELECTRO-THERAPEUTICS. A practical treatise on the diseases of women and their treatment by electricity. By G. Betton Massey, M.D., physician to the Gynecologic Department of Howard Hospital and formerly electro-therapeutist to the infirmary for nervous diseases; fellow and ex-president of the Amer. Electro-Therapeutic Association; member of the Societe francaise d'Electrotherapie, American Medical Association, etc., etc. Third edition, revised, rewritten and greatly enlarged. Illustrated with twelve original full page chromo-lithographic plates and twelve full page halftone plates of photographs taken from nature and numerous engravings in the text. The F. A. Davis Co., Philadelphia.

THE

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BLOOD EXAMINATION AN AID TO DIAGNOSIS.*

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The effort of this paper is not to present an exhaustive study of blood examination, but rather to direct attention to an aid too frequently ignored in studying the diagnosis of disease.

In obscure pathological conditions blood examination will oftentimes give such positive evidence that a correct diagnosis is at once possible.

In some cases its examination will discover important facts hitherto unsuspected; in other cases the negative result aids us; and in those cases in which we cannot communicate with the patient, either because of insanity, deception or unconsciousness, blood examination may reveal to us valuable information.

If this important aid is ignored, diagnoses will frequently prove erroneous—detrimental to the patient's welfare and to the physician's reputation. "Blood examination to-day is a potent factor in accurate diagnosis."

To be acute in the recognition of blood changes it is necessary to thoroughly understand the histology of normal

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blood. In studying the alterations of this fluid, it is essential to note the number of red and white cells in a given quantity of blood and their ratio to each other; to be familiar with the varieties of white cells; the size, shape and peculiarities of cells; the per cent. of hemoglobin and the presence and nature of foreign matter in blood. We determine this great variety of cell pathology and the presence of parasites in blood by microscopic examination. The quantity of hemoglobin which these red cells carry, which is nothing more than their oxygen capacity, is determined by Fleischl's hemamometer or by the simpler and less expensive method of Hammerslag.

The first disease my paper will bring to your mind is primary anæmia. The following cases recorded speak for themselves:

CASE I. Mary Hayden, admitted to St. Mary's Hospital April 28, 1897, was a single white girl, aged nineteen years, who lived in a convent and gave her time to the study of art and music. Her family and personal history were good. Patient first noticed she was excitable and incapacitated for work. She complained of headache, general abdominal and pelvic pain. Fatigue was easily induced. Menstruation was scanty and irregular. Her bowels were constipated. She was treated for abdominal tumor and uterine disease for three months. Physical examination demonstrated an abdominal mass, which was removed by castor oil, and a slight vaginal irritation resulting from previous treatment. Pelvic structures and abdominal viscera were seemingly normal. Urine examination was negative. Blood examination demonstrated 3,400,000 red corpuscles and 9,380 white corpuscles per cubic millimeter, a diminution of 1,000,000 red cells per c.mm. Hemoglobin, determined by Hammerslag's method, was 80 per cent. Tonic treatment and hygienic measures were instituted. Patient made a complete recovery in seven weeks. The florid complexion present in this case demonstrated that the color of the skin and mucous membrane is not an infallible guide to anæmia.

CASE II. Fannie K., admitted to the hospital October 10, 1897, a single white girl aged 16 years, was a studious school girl. She gave a tubercular family history. She complained of constant headache, anorexia, gastric disorders and slight cough. Close inquiry elicited some emaciation. Her bowels were constipated. Her menstrual life had extended over one year; the flow was scant and irregular. These symp-

toms had existed for seven months. Many anxious friends said she had consumption, and a capable physician confirmed the diagnosis.

A careful physical examination demonstrated a pallid, waxen skin and a thrill heard over the jugular veins. Sputum and urine examination were negative. Blood examination showed 2,900,000 red cells per cubic millimeter with some alteration in their form and size, white cells 8,200 per cubic millimeter, and hemaglobin reduced to 41 per cent. Chlorosis was diagnosed and treated by hygienic and dietetic measures and by internal remedies.

Complete recovery in four months. "A case of consumption cured."

The second case might have been mistaken for pernicious anæmia, but it must be borne in mind that while in pernicious anæmia there is a diminution in number of red cells and an alteration in their form and size, the color value of individual cells remains high in contra distinction to an almost invariable diminution of color value in chlorosis. There is in addition much greater destruction of red blood cells in the pernicious form of anæmia.

In these cases it will be noted that a complete history and a thorough physical examination gave no positive evidence of the true nature of the trouble, but with these facts before us, a positive diagnosis was reached by blood examination.

Enlarged spleens are not uncommon in the Ohio valley and in this section of country where malaria has an unmolested home, yet all cases of enlarged spleen are not ague cases. To illustrate I record the following cases:

CASE III. Alfred G., a white man aged thirty-three years, was a farmer who gave a good family history; no specific or tubercular history; no malarial history until two years previous to January 5, 1898. Patient complained of loss of strength and loss of thirty pounds in weight. Physical examination demonstrated a decided pallor of skin approaching a cachexia, a slight elevation of temperature remittent in type, and a splenic tumor which reached to the linea alba. The tumor was noticed by the patient five years previously, but it had never given him pain or inconvenience. Leukaemia was suspected, and a blood examination was made, which gave this result: white cells 190,000 and red cells 2,300,000 per cubic millimeter, a ratio of 1:12; a preponderance of large molecular white cells dotted with fine granules technically called myelocytes. Hemaglobin registered 68 per cent. No

other changes are recorded. Examination confirmed the diagnosis.

CASE IV. James R., a white boy aged nineteen years, was a laborer who gave a malarial history extending over a period of eight years. No tubercular or specific history; symptoms of general debility. Physical examination demonstrated a splenic enlargement, tender on pressure. Blood examination elicited considerable destruction of red corpuscles and the presence of granular bodies; white cells 7,835, red cells 3,800,000 per cubic millimeter, a ratio of 1:85; an absence of plasmodia. Quinine had recently been given. Leukaemia was eliminated and chronic malaria given as a diagnosis. Patient returned to his home, where he was given anti-malarial treatment. Three months later he was again admitted to the hospital, when he demanded an exploratory incision to determine the presence or absence of an abscess. Exploration revealed the presence of a large, smooth, indurated spleen intensely congested and variegated with pigmentation. Liver was also enlarged and pigmented.

Difficulty is sometimes experienced in the differential diagnosis of infectious diseases. When symptoms are present and physical signs are absent in a large per cent. of cases, the marked leucocytosis of pneumonia will distinguish it from typhoid fever, influenza, malaria and tuberculosis. Likewise scarlet fever may be distinguished from measles, and meningitis from typhoid fever.

Inflammatory processes and especially suppurative changes are always attended by an increase of leucocytes. Recognizing this fact, how often appendicitis can be differentiated from those affections which sometimes present a striking resemblance, namely, colic in several forms uncomplicated, constipation, floating kidney, uncomplicated ovarian neuralgia. The marked leucocytosis present in pelvic abscess will eliminate prolapsed cystic ovaries, floating kidney, pelvic pain and soreness *per se*, enterocele, fibro-cystic tumor, etc.

I recall a case which was variously diagnosed pleural effusion, empyema, syphilitic liver. Aspiration was performed several times at the Louisville Medical School clinic with negative results. Patient was admitted to St. Mary's Hospital where I examined the blood and found a decided leucocytosis, which was a factor to support the hypothesis of some suppurative change having taken place. Soon after admittance to the hospital the patient developed rigors, fever and

profuse sweats. The chest was opened and a deep pulmonary abscess was found.

I see no reason why septicaemia cannot be diagnosed from its cousin sapraemia by a blood examination, since we know that in the former septic organisms exist in the blood, while in the latter only their products are found.

My experience with elephantiasis was limited to one case. Filiaria Nocturna is said to be the chief organism present in this rare disease. The singular thing about this parasite is, that it lives in the peripheral circulation only when the host is asleep. Unfortunately, this patient never went to bed and declared she rarely slept. I was unable to find the parasite by several blood examinations.

It may be possible that the diagnosis of malignant disease will be assisted by blood examination.

In a case of osteo-sarcoma of the clavicle and in three cases of uterine cancer operated at St. Mary's Hospital, leucocytosis was found. In a fourth uterine cancer anæmia was decided, but leucocytosis was absent. In a single case of lipoma of the back, I did not find an increase of leucocytes.

Of greater importance and of greater interest to us is a class of diseases called fevers, for there is no case in which a blood examination would not throw light.

Malaria—the physician's friend—like the poor, we have always with us. A chill, fever and sweat does not always mean malaria. How often we see phlebitis, tuberculosis and septic infection stalk into the field of malarial diagnosis by wearing this cloak in disguise. The plasmodium of Laveran is always found in malarial blood unless quinine has been shortly administered.

A case of tuberculosis comes to my mind in which the patient was cinchonized for two months because these three classical symptoms of malaria were present. In this instance a cause so diminutive as the plasmodium would not be considered by a man of such colossal proportions as the attendant, in spite of repeated examinations showing its absence in the blood.

The comatose form of malaria may be easily recognized from other comatose conditions, even though the patient be unconscious and without friends to tell his history.

How different the treatment of malaria from uræmia, apoplexy, internal hemorrhage. On August 10, 1897, two patients were received at St. Mary's Hospital. The ambulance driver said he brought them from a low lying district which

the Ohio had recently flooded. No history could be elicited, as both men were delirious. Physical examination showed the various febrile phenomena—rapid pulse and respiration, temperature 104° F. and 105° F. respectively and increase of splenic dulness. Blood examination demonstrated plasmodia of malaria, which at once cleared up the diagnosis. Some investigators claim to have found the malarial plasmodium in obscure cases of paralysis, neuralgia, herpes zoster, and further investigation may give us valuable information in such cases.

One of the giant strides made in pathology in the last ten years is the well known Widal's serum test of typhoid fever. The value of this test cannot be emphasized too much.

What we need to-day is accurate diagnosis, and for such a diagnosis to be of the highest clinical value it must be expressed in terms of causation. Of what little value would be the diagnosis of bronchitis or pneumonia which had for ten daps or two weeks overshadowed the existing typhoid fever. We need not longer guess at the diagnosis of typhoid when we have a test which approaches certainty.

The typhoid bacillus is exceedingly mobile and shoots across the microscopic field with much liveliness, but when a drop of diluted typhoid blood is added to a pure typhoid culture, there is noticed a characteristic change—agglutination and sedimentation take place, mobility is diminished and finally lost in a few hours. Widal's test is so simple and so certain it should be employed in all suspected typhoid fever. To illustrate the value of a negative result I cite the following case:

Samuel Hatcher, aged twenty-three years, was a colored man with an obscure family history; syphilitic infection at seventeen years. Entered St. Mary's Hospital after three weeks of illness. The symptoms in the beginning of his illness, as far as could be ascertained, were those of typhoid fever. There were anorexia, headache, an apathetic expression and marked somnolence. His chart showed a weak pulse ranging from 100 to 120, a temperature of 99° F. to 103° F., with an evening rise, but with little daily variation. His respiration was shallow and hurried; he had profuse sweats, a diarrhoea and light colored stools. The tongue was coated and dry, but not parched and pointed. Chest examination showed rapid, harsh breathing. There were rapid emaciation, general abdominal tenderness, no tympanites. No blood examination was made in the beginning, as the

picture seemed to be that of a true typhoid. After two weeks of typhoid treatment a blood examination was made which was negative. It has been claimed that the reaction in the negro is doubtful, and this assertion opened a way for the mistake.

A slight cough developed at this time when I examined the sputa, and it seemed to me that I had found the largest tubercle bacilli I had ever seen. An autopsy was held three weeks afterward, and miliary tuberculosis was found to be general. The entire intestinal tract, including the appendix, was ulcerated. On examination of the lungs, one large cavity and extensive tubercular infiltration were found.

I have attempted to illustrate some of the ways in which blood examination may aid diagnosis. Any one of the subjects mentioned would be sufficient for a paper.

I feel that I have said enough to convince this body of thinking men of the importance of the subject.

The rapid advance in medicine and surgery, so evident to us all, may be attributed to the numerous diagnostic aids furnished by the genius of the closing years of this nineteenth century. With the ophthalmoscope the oculist looks far back on the retina and reads as if labeled in relief, Diabetes—Locomotor-ataxia. Bright's disease of the kidneys and Death in four months.

The surgeon, with the eagle eye of the cathode ray, sees the hidden bullet, an unsuspected fracture, the fractured or dislocated spine of some erring osteopath. With the electric lamp he invades the unseen regions of the bladder and stomach.

The meek and lowly pathologist gazes long on the microscopic field, and what he sees is not a vision, nor a phantom—it is real. He solves many of those problems so long dormant and mysterious to the medical world, and what he sees in the blood is not the least of these things.

If we would advance medicine and surgery to a scientific standard, we must use every means of research in the discrimination of pathological conditions.

If I have converted a single alumnus present to the great importance of blood examination in diagnosis, and especially in the recognition of obscure cases, the purpose of my paper is accomplished.

Clarksville, Tenn.

THE EARLY HISTORY OF MEDICINE.

Charge to the Graduating Class of the Medical Department, University of Nashville, March 31, 1899.

BY PROF. J. DILLARD JACOBS, A.M., M.D.,

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The early history of medicine, like that of other sciences, is profoundly involved in mystery. Innumerable myths and fables are so intimately commingled with actual facts, that the historian finds himself hopelessly alone in a bewildering cloud of uncertainty, from which there is no escape save in scepticism.

There can be little doubt but that the origin of medicine, not as a science, but as an art, is synchronous with the fall of man from the high estate in which he was created into his present estate of sin and degradation. So long as the organs of the original pair performed their normal functions, so long as health, happiness and peace constituted the only vital phenomena, so long as pain, disease and death were impossibilities even of the imagination, so long there was no need or occasion for the seeking of medical assistance. But when disease conquered health, when pain supplanted repose, when the invading hordes of pathogenic germs overcame the normal resistance of the tissues and organs of the human frame, then, and not till then, did the mind of man seek a balm for his wounds and refuge from the racking pains of disease.

It is easy for us to imagine how crude and inefficient the first attempts at medical practices must have been. But every work, however great, must have its beginning, and so it was with medicine. From the use of cooling applications to soothe the fevered brow, from the application of oil and wine to the bruised and broken limb, from the administration of simple household remedies for the many ailments of life, the science and art of medicine has grown, sometimes rapidly, sometimes slowly, until now, though by no means perfect, it stands forth in a grandeur of which our forefathers could not dream.

The earliest authentic records of medical practices are to

be found in the holy scriptures, where we gain some idea of the art as practiced by the Egyptians. About 1700 B. C. Joseph commanded his Egyptian physicians to embalm his body at death. Now this process of embalming required not only a considerable knowledge of anatomy, but also a knowledge of the antiseptic or preservative action of certain drugs. So that at this early day the Egyptians were not totally ignorant of anatomy and therapeutics. A very peculiar and no doubt appropriate combination of professions is to be found in the union of the physician and the undertaker of this ancient people.

The Egyptian god Thoth, who was probably identical with Hermes of the Greeks and Mercury of the Latins, was considered the founder and patron of the "healing art." To him are attributed quite a number of excellent works on anatomy, practice of medicine, therapeutics, instruments, diseases of the eye, etc., which taken together form a collection rivalling in completeness and excellence that of the illustrious Hippocrates, of a later day.

The Egyptians began to cultivate the art of medicine by exposing their sick on the public streets to the gaze and examination of the passing crowd. If any passer-by had been similarly affected he was required to prescribe the means that had proven efficacious in his own case. At a later date, all those who had been thus cured were required to go to the temple and there register the symptoms of their disease and put on record the remedies that had proven efficacious in its cure. These temples, located at Memphis, soon became the storehouses for medical lore, and the records being kept as carefully as the archives of the nation itself, sooner or later became valuable works of reference.

The priests, whose duty it was to attend to these matters, eventually acquired considerable knowledge of diseases and remedies, and by a close and careful study of the records, they formulated a code of medical practice which was known as the "Hiera Sacra," or sacred book. It was decreed that if the priest or physician should in following these rules lose his patient's life, he should be held blameless, but should any departure from them not be attended with success he should be punished with death. Of course, this interference on the part of the law proved a serious barrier to the progress of the science and prevented its reaching the high degree of excellence which otherwise it might have attained. We are, however, surprised to find that at a later date the Ptolemies

permitted the opening of corpses for the purpose of ascertaining the cause and nature of disease, and hence in their reigns anatomy and pathology were carried to a high degree of cultivation in Egypt.

The Bible also affords us information in regard to the history of medicine among the Hebrews. The works of Moses and especially the book of Leviticus evince a knowledge of dietetics, personal and public hygiene, sanitation, quarantine regulation and disinfection, that is far in advance of the knowledge upon other branches of science of that day.

The Jews, as a people, were never learned in the science of medicine. The religious rites and ceremonies by which they were bound virtually prevented any advance in their knowledge upon this department of philosophy. The law pronouncing him that touched a corpse unclean was virtually a death-knell to dissection and anatomy and indirectly to physiology, pathology and other branches.

We are, therefore, surprised to note the profound wisdom of the Mosaic laws which pertain to dietetics, hygiene, quarantine and disinfection. For example, the eleventh chapter of Leviticus contains a long list of animals pronounced unclean, that is to say, unwholsome articles of diet. The thirteenth chapter of the same book gives instructions to the priests, who were virtually physicians, how to diagnose leprosy. It also provides a perfect quarantine of even suspicious cases, and the banishment of those that were incurable. Should one supposed to be a leper recover, before he could return to the city and his home he must be thoroughly disinfected by a process that involved the shaving and thorough cleansing of the whole body, and consumed no less than eight days in its accomplishment. Articles of apparel that had been infected were required to be burned, and even suspicious clothing was subjected to thorough washing. The law required that dwellings supposed to be infected must be disinfected by tearing down the plastering or by thoroughly scraping the walls; while hopelessly infected buildings were to be torn down and the debris carried outside the city gates. And then, to make assurance doubly sure, all those who had been in the house were pronounced unclean by the priests, who were also city health officers, and were required to go through a process of disinfection before they could return to their families and associates. The law requiring that lepers must live outside the city gates and must give warning to the uninfected by crying unclean! unclean! was a quaran-

tine regulation far in advance of the times in which it was enacted.

I say, therefore, that it is strange that, although the Hebrews as a nation knew comparatively very little of the healing art, the Mosaic law evinces so perfect a knowledge of it. We must remember that Moses, having been rescued from the waters by Pharaoh's daughter, was reared and educated at the court of the Egyptian monarch. Here he studied and became familiar with the philosophy of the Egyptians, who were at that time the most advanced of all peoples in the pursuits of learning. He was therefore much more learned in medical science than the rest of his countrymen, but even the learning of Egypt was, at that time, 1500 B. C., vastly inferior to that exhibited in the book of Leviticus. We have, therefore, no satisfactory explanation of this inequality save in the admission that these laws were given by Moses under divine inspiration; for the learning of the day was totally inadequate to their production and it has been left to comparatively modern medicine to interpret and appreciate their profound wisdom.

About 500 years later we find that Solomon was the highest exponent of science and philosophy. We are told that he surpassed in knowledge and wisdom all the orientals and even the Egyptians. He was versed in zoology and botany. "He spoke of plants, from the cedar of Lebanon even unto the hyssop that springeth out of the wall; he spoke also of beasts and of fowls and of creeping things and of fishes." The historian, Josephus, adds "that God gave to this prince a perfect knowledge of the properties of all the productions of nature, and that he availed himself of it to compound remedies extremely useful, some of which had even the power to cast out devils."

As among the Egyptians, so among the Jews, the priests were the patrons and practitioners of medicine, nor is there any mention of lay physicians in the Bible except in the 38th chapter of Ecclesiasticus, which is generally considered apocryphal. Although this chapter is not considered canonical, it must have been written not much later than the time of Solomon, and some attribute it to Solomon himself.

However this may be, it at least gives us an insight into the dignity of the position which the physician of that day occupied. I, therefore, quote as follows from the 38th chapter, 1st to the 4th verse:

1. Honor the physician, because he is indispensable, for the Most High hath created him.

2. For all medicine is a gift from God, and the physician shall receive homage from the king.

3. The science of medicine shall elevate the physician to honor and he shall be praised before the great.

4. The Most High hath created the medicines out of the earth and he that is wise will not abhor them.

The numerous miracles of healing performed by the prophets and later by Christ himself were not accomplished by natural means, but by superhuman power, and hence play no part in the development of the science of medicine. Nevertheless, it is a great inspiration to the Christian physician to reflect that the great Savior of mankind thought it worth while to spend a large part of his life in the practice of medicine.

Let us now turn our attention for a short while to the history of our science among the oriental Indians. Under this term we include all those tribes inhabiting that vast extent of territory bounded on the East by China, on the West by Persia, on the North by little Thibet and on the South by the sea. Though later divided into many kingdoms, they appear to have had in antiquity the same origin and similar religious rites and medical practices.

The Indians are divided into numerous social orders or castes, the highest of which is that of the priests or Brahmins. They constituted the philosophers and scientists of the day and were alone permitted to exercise the offices of the priest and physician. Their medical knowledge, or ignorance, if you will, is collected in a sacred book which they call the Vagadasastir, and which is much more voluminous than it is replete with sound philosophy.

They imagined that all internal diseases were the result of one of three causes, either wind or vertigo or impure humors. Their anatomy taught that the human frame was composed of 100,000 parts, of which 17,000 were vessels, each vessel being composed of seven tubes, each tube giving passage to ten varieties of gasses. So long as these currents of gas circulated in their normal courses, health, happiness and peace were the results, but when any confusion or intermingling occurred, disease, pain and even death resulted. They conceived the origin of the pulse to be from a reservoir at the

centre of the body. This reservoir was four fingers wide by two in length and from it originated 72,000 canals, which were distributed to every part of the body. On visiting his patient the Hindoo physician examined the pulse, watching carefully certain imaginary changes of the countenance; consulted the stars and the flight of birds; observed any accidental incidents of his visit, and made his diagnosis from a thousand and one circumstances, omitting only those that were of diagnostic value.

We could easily imagine that with such ridiculous views on the origin and nature of disease, their treatment would be equally erroneous. Nevertheless we are assured that they were very skillful in the selection of remedies. They are said to have had preparations that would remove the scars of small pox—an impossibility to modern medicine; they also possessed remedies for the bites of certain venomous serpents, which remedies are now no longer known.

They claimed that their system of medicine was given them by the gods, was infallible and could not be improved upon. Hence we find that for thousands of years there has been no advance in the medicine of the Hindoo.

The Chinese offer to our consideration the unique spectacle of a people who have preserved for over 4,000 years their manners, laws, religion, literature, language, name and territory. It has always been the policy of this people to shun contact and acquaintance with other nations and ideas, and only within the past few years through the energy and zeal of Christian missionaries have there been any infringements upon their ancient customs and thoughts.

They attribute the invention of medicine to one of their emperors, who is reputed to have reigned in the year 2687 B.C. To him is attributed the code of medical practice which they are still using, and when we consider the preposterous theories it contains, it is not so difficult for us to imagine that it is the work of the ancient emperor.

They claimed that there existed in the universe two great principles, heat and moisture, varying proportions of which produced motion and growth, health and disease, life and death, in fact, all vital phenomena. They believed that an excessive degree of heat produced cold and an excessive degree of cold produced heat, for, said they, summer produces winter, and winter, summer.

It has been claimed by Chinese physicians that one of their ancient emperors ordered the dead bodies of criminals

to be opened for the purpose of ascertaining their internal structure, but when we consider the density of their ignorance on this subject we are led to consider their statements extremely improbable.

It but remains for us to consider the early history of our science among that greatest of all peoples of antiquity—the Greeks. It is Greece that furnishes us not only with the most interesting and significant remains of the history of medicine, but also of art, sculpture, oratory, literature and philosophy. Here again, however, we find that the earliest records are totally unreliable on account of their evident admixture with myths and fables. In fact, previous to the Trojan war there is little else than tradition.

The Greeks were a people of gods and temples. They worshipped and deified almost every phenomenon of nature. In fact, Leclerc tells us that there were no less than thirty gods and deified heroes who presided over or cultivated different branches of medical science.

Of all these ancient patrons of the healing art, none was so illustrious as the learned Æsculapius. So great were his learning and skill that temples were erected for his worship and priests appointed to offer sacrifices to him.

It is evident that he was a very prominent physician at the time of the Argonautic expedition, for it is related that Castor and Pollux desired him to attend their expedition as surgeon.

So numerous and so wonderful were his cures that Pluto, the god of the infernal regions, becoming alarmed at the diminishing number of his daily arrivals, complained to Jupiter, who destroyed the presumptuous healer with his thunderbolts. "On which account," some wit has said, "the modern sons of Æsculapius abstain from performing prodigies."

Though there is much of mythological uncertainty connected with the biography of Æsculapius, certain it is that he was a great mind, a close observer, and, for the times in which he lived, an exceptionally skilful and learned physician and teacher. The good that he did lived after him, and his sons and pupils, building upon the foundation laid by their great preceptor, reared a structure of medical science of no mean proportions. He was deified as the patron of the healing art, and the temples dedicated to his worship became celebrated resorts for the cure of all manner of human ills.

The priests, who were also physicians, kept accurate and

careful records of the symptoms and treatment of the diseases they encountered, and thus eventually acquired no little knowledge of disease and remedies. The office of priesthood, together with much practical medical knowledge, was transmitted from father to son, so that as generation succeeded generation the amount of medical lore was increased and its quality greatly ameliorated.

The temples of Æsculapius, the most celebrated of which were those of Capidaurus and the Island of Cos, were, according to Renouard, "very salubriously situated, sometimes on the summit of a hill or the declivity of a mountain; sometimes on the shore a little distant from the sea and near to a thermal spring or fountain of living water."

Hither the halt, the maimed and the blind convened from the four corners of the earth, to pay their vows to the great god of the healing art and to be cured of their numerous ailments. Here they were free from the worry of business affairs, free from the monotony of daily routine; here new scenes and pleasant pastimes diverted their minds from their physical condition. Here the pure air of the mountain or seashore braced the constitution to renewed hope. Here the surf bathing, the mineral waters, the regulated diet, the perfect hygienic surroundings, the simple remedies of the physicians, and last, but not least, the religious faith and fervor which were artfully excited almost to a degree of frenzy, effected in many cases permanent cures and in a large majority marked improvement.

It is not strange, therefore, that these temples became celebrated resorts for the cure of disease, and pilgrimages were made to them from all parts of Greece and even distant lands. They were not only sanitariums, but also colleges for medical instruction. At first only members of the priestly order were admitted, but later, laymen who could stand the tests of character imposed by the initiated were also admitted as students.

The temple of Æsculapius, situated on the Island of Cos, was especially noted as the Alma Mater of the illustrious Hippocrates, the father of medicine. This great physician was born in the Island of Cos in the year 460 B. C. His parents were of the priestly order, so that he inherited a position in one of the greatest hospitals of his day.

"He was a contemporary of Socrates, though somewhat younger, and lived in the age of Pericles, the golden age for science and art in Greece." He studied first in the temple

of Æsculapius in his native land, but later visited the principal cities of foreign countries, where he assiduously studied the diseases which he encountered, and by his superior skill and learning acquired an international reputation.

His writings prove that he was a very close observer, and although his knowledge of the structure of the human body was of necessity very limited, his descriptions of disease and therapeutic remedies present a degree of accuracy and ability far superior to that of his predecessors. He differed from his predecessors and contemporaries in that medicine was to him a science, not simply a conglomerate of empirical observations. His high veneration for the philosophic in medicine may be appreciated from his remark that "a philosophic physician resembles a god."

To him is due the honor of converting medical empiricism into medical science. The medical world of his day was thronged with quacks and charlatans; there was Asclepiades of Bithinia who, as an advertising scheme, resuscitated a corpse in a public place in Rome; there were the equals of Paracelsus of a later day who boasted of keeping in a vial a little living man which he had himself manufactured.

In the midst of all this dishonesty, fraud and boastful quackery we find Hippocrates the embodiment of professional modesty, ability, learning and skill. For centuries after his death his teachings were accepted by the profession as representing the most perfect system of medical science and practice.

The age of Hippocrates is the golden age for medical progress among the ancients. It marks the beginning of medicine as a profession. The physician still receives the esteem and veneration previously accorded him as priest. The law begins to recognize the value of medical skill, so that the historian tells us that in Greece public physicians were employed by the state. They were paid a stated salary ranging from $1,500 to $2,000 per annum, and were required to treat, free of charge, all that applied to them. So great was the confidence of the state in the medical profession that there was enacted among the Locrians a law punishing with death the patient who disobeyed the orders of his physician, so that some one has said, "Death to the Greek became inevitable."

Such then is a brief review of the history of medicine among the peoples of antiqnity. The brevity of time alloted has not permitted us to go deeply into the subject in hand,

and yet if you carefully analyze the history of the development of our science among these ancient peoples you may derive thoughts and principles that may serve to guide aright your professional careers and contribute much to the development of medicine in the future.

And now, gentlemen of the graduating class, allow me in closing to commend to you the professional traits we have observed in the life of the illustrious Hippocrates. I would recommend that you emulate his professional modesty. In a generation of quacks and charlatans, of fraud and dishonesty, he made no pretentions to superior medical skill and learning. He was a plain, honest physician in a time when honesty was not the best policy.

The profession to-day has need of just such men, men who are unwilling to take to themselves credit that is not due them; men who are unwilling to thrive at the expense of the honor and good name of their competitors; men who spurn the thought of glaring advertisements or illicit short cuts to professional popularity.

The relation which you, as physicians, are to sustain to society is a most peculiar and delicate one. You are to take upon yourselves to-night the offices of a profession that will bind you with sacred ties to the very hearts and lives of the people. Your profession will give you entrance to the inmost researches of the home. Your ear is soon to hear, in sacred confidence, the story of the hidden life. Your eye will soon be dimmed with tears of sympathetic sorrow for the calamities your skill could not prevent. Wherever there is pain and sickness, sorrow and dying there your station is to be. It is therefore most benefitting that your lives should be the embodiment of all that is pure and gentle, noble and true.

You will often be placed in most trying circumstances. There will be times in your lives when you would give your all to be free from the awful weight of responsibility which your profession has cast upon you.

Your responsibility will be great, your trials and hardships will be many; all this you have considered well. But let me add that if you do your duties well your reward is also great. I am not a prophet to draw aside the veil that hides the future; I can not tell the success or failure that is to be your lot in life; I do not know how high in the scale of earthly fame your station is to be; but this I know, that in that dim and distant future which men call eternity, when

the God of all the world shall sit in awful judgment upon the deeds done in this present body, the cup of cold water given in his name, the name that soothed the racking pains of disease, the words of cheer, comfort and hope, the little acts of kindness done to the poor and destitute, whose hand can never repay, shall receive an eternal reward.

BIBLIOGRAPHY—Renouard's History of Medicine; Harper's Dictionary of Classical Literature and Antiquities; Roswell Park's Epitome of the History of Medicine; Francis Adams' Translation of the Genuine Works of Hippocrates; the Mosaic Law.

A CURIOUS POCKET PIECE.

In the New York Medical Journal of February 4, 1899, Dr. William S. Gottheil describes a case in which a woman carried a piece of her own skull in her pocket for years "for good luck." She applied for treatment for a different affection, and it was discovered incidentally that a syphilitic periositis had begun again around the scar left by the ulceration from which her piece of bone had come twelve years before. As in the present case, she had not at that time attached sufficient importance to the matter to consult a physician about it. The sequestrum, of which she was quite proud, was an ovoid piece of bone measuring 2¼x2 inches, and was composed of two adjacent portions of the two parietal bones, the sagittal suture in the middle showing beautifully. Its upper convex surface was composed mostly of cancellous tissue, but all along the middle line, at the suture, the inner table was present, showing that at that place the entire thickness of the skull had been lost.

Apart from its curiosity, the case is of inserest as showing the very extensive destruction of important organs that can take place in syphilis without systemic reaction or much personal inconvenience. The entire thickness of the skull had been destroyed, and the meninges necessarily exposed, yet the inflammation had not spread to those membranes, and the patient had hardly considered herself sick.

PRESIDENTIAL ADDRESS, ALUMNI ASSOCIATION, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLL, MEETING OF 1899.

BY CHARLES PETTUS, M.D., MONROVIA, ALA.

Fellow Alumni: Since we last met another year with its trials and joys has passed away. Numberless centuries have rolled away since the universe was evolved from chaos, and a year seems but an atom in this vast space of time, yet knowing the brevity of human life and that over a third of this is needed by those engaging in our profession to prepare themselves to begin, a year's time is of great importance to doctors and medical students. We should as doctors and students be miserly of the fleeting moments and accomplish all that is possible in each second before it swiftly wings its way into the illimitable past.

Much good has been accomplished by our profession and possibly more progress made by it, both in teaching and practice, than in any other calling. 'Tis needless for me to review the history of our profession, but simply for comparison let me call your attention to the days when the farrier and barber, with the assistance of some one knowing empirically the effects of decoctions of certain herbs were the surgeons and physicians. A few years ago a man—women in that day were not permitted to become doctors or even trained nurses—but a man desiring to become a doctor, read in a more or less desultory way for a few months under some preceptor, attended college a still shorter time, and was launched on the sea of life as a doctor. These men, although illy prepared and often illiterate to an astonishing degree, made good doctors, and in their individual spheres accomplished much good. They were imbued with the spirit of altruism, they educated the laity, and more especially their followers in the profession, so that each year the doctor must approach a higher ideal in both literary and special learning. Our Alma Mater was among the first to adopt a longer course and to demand higher qualifications for entrance into her halls. Now she will require a four year's course, and a still higher standard of literary education. Formerly her teachings were

largely by means of didactic lectures. To-day in this new and extensive building are the large lecture halls, the various laboratories and free clinical material, from which daily the student can draw knowledge by actual contact.

All honor to those noble men who in the past kept our Alma Mater in the forefront of medical institutions. Without in the least detracting from the glorious career of these giants in teaching and practice, give all the praise due to those now at the helm, and by our encouragement and assistance spur them on in untiring efforts to carry our Alma Mater to the very front in medical teaching. The law of the survival of the fittest will, to my mind, be more exemplified in medical colleges in the next few years than in any other one thing. So let us, as her loyal sons and faculty, rally around the banner of the old University of Nashville, and keep her among the most progressive of the medical schools.

It is to my mind very essential that one desiring to become a successful and skillful practitioner should, before engaging in the special study of medicine, be well grounded in the classics and collateral sciences, since after beginning his career as a student and practitioner he will have but little time to devote to other branches of study.

The science and art of medicine has, as we know, gradually grown out of empiricism. Now-a-days we cannot, if we are skillful and conscientious, examine a patient simply by feeling the pulse and looking at the tongue, administer a shot-gun mixture, believing that if all of the ingredients do not do good, possibly one of them will. Surgery, because of its vast progress and very palpable results, will and does appeal most strongly to us all.

But since all of us, through the force of circumstances, cannot be surgeons, and because all of us will administer drugs potent for good or evil, let me ask that all of you will continue your researches and studies in Materia Medica. You will find it specially easy to disregard your knowledge of this branch for the reason that you will be overwhelmed with free literature and free samples of numberless preparations guaranteed to cure all the ailments of humanity from a pin prick to Phthisis Pulmonalis.

To my mind, individually we need not such a vast array of drugs and remedies, but that each physician should study and become thoroughly acquainted with those that will meet the necessary indication and thus be exact in prescribing.

Free hospitals and dispensaries are necessary and benefi-

cent charities, yet I fear if their portals are not closely guarded many who could pay something for professional services will be admitted and thus instead of helping only the pauper, they will rob the poor young doctor of many small fees.

Our profession calls for all that is in a man. It is the most exacting of all callings, and I hold that a doctor should always exact a fee within the means of the patient. By so doing he will show that he places a value on his services, and will cause the patient to have more respect for the profession and for himself also. Ofttimes we are called to those who can only pay us by their gratitude and the knowledge of a good deed well done. So always attend the poor freely, cheerfully and to the utmost of your skill.

Fellow Alumni, it is to me and doubtless is to all of you, a great pleasure to know that we have an organization which meets annually within the halls of our Alma Mater, to which meetings we may go in the gladsome spring-time and spend a few hours in pleasant and social converse with our college mates. At these meetings we can recall the joys of our pleasant college days, and aided by the rest and relaxation, go back to our work rejuvinated and reinspired. To those of you who have not already joined other medical associations, let me advise you to do so. The attendance on medical associations or societies will prove of great benefit to you, and serve as a short post graduate course.

There are, as some one has said, too many doctors in this country and competition for practice will be sharp, but all should adhere strictly to the code of ethics. At first you may by electioneering get some practice, but sooner or later you will realize that the estimate of your professional brethren will also be placed on you by the laity.

Be neat in appearance. Take care of your office and it will provide you with patients. Prepare your remedies in as palatable a form as possible. Show each individual patient that you are truly interested in his case. In these and other legitimate ways you can gain and keep a practice. In closing let me beseech you to be loyal to our Alma Mater, to our association, to yourselves and to the Code of Ethics.

VALEDICTORY OF THE CLASS OF 1899 OF THE MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

BY ENOCH W. TIPTON, M.D., CLOVER BOTTOM, TENN.

Pleasing and varied are the thoughts that fill our minds as we gather here to-night. To some has come the vision of the life that lies before them, and they have followed nimble fancy in her airy flight as she lead the way to scenes of fame and fortune. Some have thought of days gone by, have heeded fond memory's call and again reviewed their childhood's happy days.

Commencement marks a stage in the journey of life, a turning point that is full of interest both to the young and to the old. It is an occasion fraught with trials and triumphs; with tears and smiles; with love and hopes.

It is a time when memory and fancy mingle their voices; a time when the father looks with dim eyes into the gloom of years that are gone, and the sun is lured by the light of love and hope that shines in his future pathway.

Thus as we stand and linger upon the threshold of a new life, loath to leave the scenes we have learned to love so well, memories fond and sweet come thronging to our minds.

We remember the friends in Nashville we now must leave; we recall the time when we first came among you as strangers among strangers, and now pause to recount the kindness you have shown us; the interest you manifested in our modest efforts.

For all this interest in us, for all this love for us, in the name of the class of '99, I beg you to accept our heartfelt thanks.

And a word of the Alumni, who have calmly passed from the shop to the field. In that field they have found employment and to-day they are the Atlases upon whose shoulders humanity rests its burden. They live and labor for the love of man.

Mention their names and the old university blushes with pride as she says, "These are my sons." Proudly may she claim them as her own and gladly do they call her mother.

And now to those of you who, as such of the old univerty's loving sons, and at her tender call, have returned from life's labor to take your wonted place under the shadow of your Alma Mater, ere we leave the threshold of our university home, we bid you "All hail and farewell!" May heaven's richest blessings be your lot.

To Professors Nichol and Maddin we will say that your life's work is almost behind you; but how leisurely can you rest upon your laurels won and how proudly we point to your achievements.

Nor would it be but fitting to congratulate the Faculty upon the selection of the two professors who have been with us for the first time during the session just closing—Professors Jacobs and Wood.

Professor Jacobs, though young in years and in your profession, you have shown yourself worthy of the position which you have so ably filled during the past session, and we predict for you a brilliant future.

To Professor Wood we bow in admiration. Although you have caused us to trim the midnight lamp and bend over our books when the morning star shone dead and the dull hours of night faded with purple dawn, yet we love you the more. We can truly say that your coming among us should not only be a source of pride to the profession in the city of Nashville, but should be hailed with delight by the medical profession throughout this sunny Southland.

And now, members of the Faculty, one and all, we must say "good-by." For the instruction you have given us, for the valuable principles you have inculcated, for the interest you have manifested in ourselves, and for the hopes and wishes you may entertain for us, in return for all these we offer you our heartfelt thanks, our love and our prayers. We shall not call your attention to the noble work you have done in the years that are passed. Proudly may you point to the thousands of young men who have gone out from under your care and made themselves champions, nay, pillars in the medical profession. They are monuments of your labor. Their welfare is your happiness; their success is your reward; their achievements are your glory.

If silent thought were strings of pearl, if spoken words were shining gold, if glowing sentences were wreathes of fragrant flowers, we would to-night lay them at your feet in token of the deep gratitude we feel and find no fitting words to express.

Fellow students of the graduating class of '99, we come tonight to say a last farewell as we enter upon the billowy tide of personal activity. Three long years we have spent together in the lecture halls of the old university, not attracted by the thought that we could there receive the degree of M.D. and tread the flowery paths of pleasure, but because we wished to tread that rough and rugged path which leads to all true knowledge. You need not be eulogized. This is indeed one of the occasions when truth is eulogy and the language of panegyric does not outmeasure the just reward of your labors.

Wherever your minds may build, may they build in consecration to your noble profession, and may you always, without dishonor, bear the mantle of responsibility which falls from stainless shoulders to your own.

As I stand here in the twilight of our college life and think of the dawn that streaks the breaking day of our future careers, a picture passes before my mental vision. I see a strong young man ready to set out on a long and weary journey. I see him standing in the sunshine upon the doorsteps of his childhood's home. There are gathered about him father and mother, sister and brother. The time has come that calls him to life's labor.

The world lies before him where to choose, and ere he severs the tender ties of home and kindred he pauses at the door to say good-by, to shake the withered, trembling hand of his dear old mother, and to receive the last blessings of his loving father.

Again the mother presses her boy to her bosom and breathes a prayer to heaven. Through the tear of grief shines the star of hope, and the kiss of youth presses the brow of age.

He leaves now the home of his heart, the idol of his love. He lingers for a moment at the little gate and looks again upon the scenes of his childhood.

He remembers how under yonder pines and cedars he was wont to play in the shade, listening to the singing bird calling to its mate. He seems to hear again his comrades calling him to play, and with his mother standing in the sunshine sobbing out a prayer and a blessing, he passes down the dusty way and ere he disappears behind the turn in the road, he looks again upon his home and a tear trickles down his cheek as he raises his hand and waves a last farewell.

Friends, comrades, college is the home, life is the journey, we are the travelers.

To-night we must sever the tender ties of home and friendship; to-night we start upon a long and weary journey. We have now reached the turn in life's dusty way, and ere we disappear from the view of those we leave behind, we pause to say good-by; we linger to wave you a last farewell, and when we grow faint on life's dusty highway, when the storms of life overtake us and the clouds of despair hang black and threatening over our heads, may the memory of these years be to us as a benediction and a guide, as a solace and a consolation. Amid all life's tempests may we stand steadfast and immoveable, like ocean light-houses, pointing to right, pointing to peace, pointing to heaven.

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Alumni Association, Medical Dept., University of Nashville.

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EDITORIAL.

THE BULLETIN'S PRIZE COMPETITION.

The prizes offered by the BULLETIN for the best essay by an alumnus of the Medical Department of the University of Nashville, to be read at the annual meeting of the Association, were awarded as follows:

FIRST PRIZE to Dr. Maurice L. Hughes of Clarksville, Tennessee, for "Blood Examination an Aid to Diagnosis."

SECOND PRIZE to Dr. H. S. Ward of Nashville, for "Peliosis Rheumatica, with Report of a Case."

THIRD PRIZE to Dr. James B. Lowry of Nashville, for "The Treatment of Strangulated Inguinal Hernia."

The BULLETIN extends its heartiest congratulations to them. They are, each one, thoroughly competent and qualified physicians, standing high in their respective classes when graduated, and each has done work since which is of such a

quality that it well serves as the starting point of a career of distinction.

Dr. Hughes was further complimented by an election to the Presidency of the Alumni Association. He was the Alumni Medalist of the class of '97, won an appointment to St. Mary's Hospital, Evansville, Indiana, in a stringent competitive examination with graduates of Northern and Eastern schools, and gathered there a ripe experience such as falls to the lot of comparatively few young men. The BULLETIN expects to see the Alumni Association make rapid progress under his energetic administration.

A CHANGE IN THE MEDICAL PRACTICE ACT.

The powers and privileges of the State Board of Medical Examiners of Tennessee have been considerably curtailed by the amendments recently enacted. The law has been so altered as to give the graduates of reputable medical colleges in the State the right of registering as qualified practitioners, although those presenting diplomas from schools outside of the State must be examined.

The fees of the Board are somewhat reduced in addition to the reduction which will result from a decrease in the number of applicants examined, but a provision is made for covering the proceeds of all prosecutions for violations of the law into the treasury of the Board.

We conceive that the action of the Legislature is not a move in the right direction; that the removal of the safeguards which the enactments of previous Legislatures have thrown around the practice of medicine in Tennessee will not tend to the best interests of the people of the State; nay, we believe that a positive injury has been done, both to the public and to the profession. The progress of medical science and the advance in the standards of medical teaching will not be checked by the lack of regulation, but if the regulating be wisely done, both will profit by it.

The members of the various medical faculties of the city of Nashville and, we believe, of the State, appreciating this fact, were, much to their credit, unanimously in favor of the previous law, or one even more stringent.

The members of the Legislature, however, not appreciating the ultimate effect of the bill, allowed themselves to be decided, not by the merits of the bill but by the lobbying of a number of students desirous of escaping the exactions of the Board. These students did not realize, as we believe, the far reaching action of the measure, nor the manner in which the condition of partial anarchy which it induces will undoubtedly influence their own future.

We believe that the two years which will elapse before the next meeting of the Legislature will be amply sufficient to demonstrate the defectiveness of the law, and that then a law will be passed which will afford ample protection to all the interests involved, the public welfare, of course, foremost.

PERSONAL.

Dr. H. W. Jarrell, Lisbon, La., class of '98, was married to Miss Vera Meadows, also of Lisbon, on March 26th last.

THE BULLETIN extends its congratulations. Dr. Jarrell has made an excellent beginning in practice, and we heartily wish him a continued success, and to him and his bride, a life's long happiness.

THE FORTY-EIGHTH COMMENCEMENT.

The degree of Doctor of Medicine was conferred by the University of Nashville upon sixty-eight young men at the close of the session of ninety-eight and nine. The commencement exercises were held in the Theatre Vendome on the evening of March 31. The stage was handsomely decorated with palms and lilies, and was occupied by the Chancellor, Medical Faculty and Trustees. The members of the graduating class were seated in a body in the front and center of the building, the remainder of which was filled with their friends and relatives and visiting alumni. During the intervals the Vendome orchestra filled the house with cheerful resonance.

The Dean of the Faculty, Professor W. G. Ewing, was master of ceremonies, and gracefully introduced each speaker in turn.

Dr. J. D. Barbee offered the prayer with which the exercises were opened, and was followed by the charge to the class on behalf of the Faculty, delivered by Professor John D. Jacobs. (We give Professor Jacobs' address elsewhere in this issue.)

The spokesman of the class was Dr. E. W. Tipton, of Tennessee, who delivered a touching valedictory.

Professor Ewing spoke of the advances which the school has made in its curriculum. Five years ago it advanced its course from two years to three, and it has now added a fourth year, intending always to lead in all things pertaining to medical education.

Professor James M. King, the Secretary of the Faculty, now presented the class to Chancellor Payne, who conferred the degree with impressive dignity, speaking in classical Latin. The roll of the class as called by Professor King was as follows:

William J. Abel, Tennessee; Mary Rebecca Baker, South Carolina; Alfred Eugene Barrett, Texas; Ledru White Bayne, Mississippi; Samuel Milton Black, Illinois; George Dorsey Boone, Tennessee; James Madison Britton, Texas; William Austin Buchanan, Indiana; James Fulton Burnam, Tennessee; William Grover Burton, Kentucky; Malcolm Hugh Clark, Missippi; Oliver Cromwell Cook, Tennessee; William

Pate Cooksey, Louisiana; Fannie Wooten Cowle, Tennessee; Alvah Clark Dickson, Tennessee; Charles Hayden Donoho, Tennessee; John Henry Dorgan, Tennessee; Charles Francis Duchein, Louisiana; Robert Lee Eaton, Tennessee; Thomas Jefferson Exton, Illinois; John Kennerly Farris, Tennessee; Eliphaz Cowan Forbes, Tennessee; Willis Castilla Ragan Ford, Louisiana; William Freeman, Texas; Philip Steele Gaharian, Louisiana; George Dunnaway Hamilton, Tennessee; William Walsh Hamilton, Tennessee; John Alvis Hardison, Tennessee; Leroy Stanton Hennen, Pennsylvania; Eason Holbrook, Ohio; Virgil Palmer Jackson, Tennessee; John Short Jenkins, Louisiana; Cullen Dempsey Johnson, Texas; Llewelyn L. Jones, Kentucky; William Jordan, Tennessee; William Kelley, Missouri; Joseph Edward Knighton, Louisiana; Sam Houston Landrum, Tennessee; Venie J. Lee, West Virginia; James Robert Lockhart, Mississippi; Ruffin Longest, Mississippi; John Shirley Lowry, Tennessee; Charles Thomas Martin, Tennessee; Henry Lawrence Martin, California; Samuel Evans Massengill, Tennessee; William Asbury McClain, Tennessee; Charles Alva McClure, Indiana; William Boone McClure, Kentucky; Moses McCarley McMillan, Mississippi; Thomas Eugene Moore, Texas; W. Baine Moore, Kentucky; William Horatio Neal, Tennessee; Francis Thos. O'Leary, Indiana; Eddie Lafayette Robertson, Mississippi; George Austin Davis Robinson, Texas; Mary Conroy Rudolph, Tennessee; John Beidleman Seneker, Tennessee; James Madison Shelton, Tennessee; Charles Delmer Smith, Indiana; Lewis Wetzel Spradling, Tennessee; Binford Throne, Tennessee; Enoch William Tipton, Tennessee; John Dudley Todd, Tennessee; Albert Levi Townsend, Alabama; Erasmus Baxter Wheat, Texas; Mack Ramsey Winton, Tennessee; Samuel Radford York, Tennessee.

Four members of the class who were unable to take the examinations on account of illness, Messrs. A. C. Bailey, E. O. Jenkins, J. W. Maddox and E. F. Peden, will be granted a special examination on their recovery.

The honors of the class were announced by Dr. Ewing, and were as follows:

The first honor, with the University of Nashville medal, and an appointment to the Nashville City Hospital for one year, was won by Dr. Binford Throne of Nashville.

The second honor, with the Alumni medal, went to Dr. Henry L. Martin of California.

The third honor, with the W. K. Bowling medal, to Dr. Mary R. Baker of South Carolina.

Honorary mention (requirement eighty-five per cent. or better) was awarded the following members of the class: J. H. Dorgan, Sam H. Landrum, G. A. R. Robinson, L. W. Bayne, Wm. Jordan, J. B. Senekker, M. M. McMillan, J. E. Knighton, J. M. Shelton and M. H. Clark.

The medals were delivered by Dr. J. D. Barbee with a few happy words of advice.

Professor Wood's special prize for the best reports of his clinics was won by Dr. Mary R. Baker.

The BULLETIN'S prizes for the best essays at the alumni meeting were now announced and were as follows:

First prize, twenty-five dollars, to Dr. M. L. Hughes of Clarksville, Tenn., for an essay on "Blood Examination an Aid to Diagnosis."

Second prize of fifteen dollars to Dr. H. S. Ward of Nashville, for an essay on "Peliosis Rheumatica."

Third prize of ten dollars to Dr. James B. Lowery of Nashville, for an essay on "Treatment of Strangulated Inguinal Hernia."

Many of the graduates received handsome bouquets, and then, after benediction by Dr. Barbee, the assemblage dispersed, the newly-made doctors happy amid smiles, hearty handshakes and good wishes of their friends.

The BULLETIN wishes you all success, boys.

THE ALUMNI ASSOCIATION.

The annual meeting of the Alumni Association of the Medical Department of the University of Nashville was held in the Auditorium of the college building March 30, 1899.

The meeting was called to order by Dr. S. S. Crockett, chairman of the executive committee, at 10:30 a.m. After the reading of the minutes of the previous meeting, the morning was spent in the registration of new members. The following gentlemen were received as members from the class of 1899:

M. M. McMillan, Miss.; C. D. Johnson, Texas; J. D. Todd, Tenn.; W. J. Able, Tenn., L. S. Hennen, Penn.; Wm. Kelly, Tenn.; Venie J. Lee, W. Va.; G. A. Robinson, Texas; F. T. O'Leary, Ind.; R. Longest, Miss.; S. M. Black, Ill.; L. W.

Bayne, Miss.; H. L. Martin, Cal.; W. B. McClure, Ky.; W. A. Buchanan, Ind.; C. H. Donoho, Tenn.; J. M. Shelton, Tenn.; W. A. McClain, Tenn.; John Jenkins, Ark.; C. D. Smith, Ind.; Mary R. Baker, S. C.; J. K. Farris, Jr., Tenn.; J. B. Seneker, Tenn.; W. B. Moore, Ky.; C. F. Duchein, La.; A. L. Townsend, Ala.; L. W. Spradling, Tenn.; S. E. Masengill, Tenn.; S. H. Landrum, Tenn.; C. T. Martin, Tenn.; E. B. Wheat, Texas; E. W. Tipton, Texas; J. M. Britton, Texas; D. B. Kimmel of the class of 1887 and W. D. Pettus of the class of 1867.

The Association then adjourned to meet at 8 p.m.

The Association was called to order at 8 p.m. by 1st Vice-president Claude Bettus of Alabama. The Secretary was called upon to read some letters from absent alumni. A letter from Dr. Q. C. Smith, of Austin, Texas, was read which expressed his regret that he could not meet with his brother alumni, and which showed the loyalty of one who is ever watchful of his Alma Mater's best interests. Another letter from Dr. J. T. Jelks, of St. Louis, Mo., was read, expressing his warm feeling for his Alma Mater and bidding her God's speed in every undertaking.

The Presidential address was next delivered by 1st Vice-presipent Dr. Claude Pettus. He spoke of the great strides which our profession had made in recent years and of the high standard which our University now enjoys. He urged each alumnus of this institution to hold up the arms of the grand old school, and above all things to lead a pure, ethical professional life.

The next business before the Association was the reading of essays by the gentlemen contesting for the prizes offered by the MEDICAL AND SURGICAL BULLETIN, the official organ of the Alumni Association. The President selected as judges Professors S. S. Crockett, E. G. Wood and A. B. Cooke.

Dr. J. B. Lowry of Nashville presented the first paper on the "Treatment of Strangulated Inguinal Hernia." He reported a case of a child two months old that had suffered with this condition, was operated upon and made an uncomplicated recovery. He spoke of the different classes of operations and explained the advantages and disadvantages of each. His paper showed much study and was in every particular most interesting.

The next paper was read by Dr. H. S. Ward of Nashville, his subject being "Peliosis Rheumatica." He cited the

opinions of severol eminent physicians as to whether it was a distinct disease, or one disease engrafted on another, or a peculiar manifestation which any severe blood dyscrasia may exhibit. He reported a case that had come under his observation, giving a clear and concise clinical history of the case. He also gave the results obtained at the post mortem. His paper was very instructive and much appreciated.

The third paper was read by Dr. M. L. Hughes of Clarksville, Tenn., his subject being "Blood Examination an Aid to Diagnosis." He spoke especially of the results obtained by an examination of the blood in all forms of wasting diseases. How often a patient is said to be in the last stage of tuberculosis when it only remains to examine the blood and there to find that the diagnosis was incorrect. The subject was well presented and met with the applause which it so justly deserved.

Dr. G. A. Warren of Decherd, Tenn., read the next paper on "The Treatment of Pneumonia. Dr. Warren in his paper spoke of the various modes of treatment offered by our numerous writers on this subject and of the advantages and disadvantages of each. He then gave the Association the benefit of his experience with this disease, speaking especially of the value of alcohol, digitalis, and, above all, of nourishing diet. He says he always treats the patient and not the disease.

At the conclusion of the reading of the essays the judges asked that they be given a copy of papers and also be given until the following evening to render their decision. This was granted by the chair.

The results were announced at the commencement exercises and resulted in the first prize of $25 being awarded to Dr. M. L. Hughes of Clarksville, Tenn., the second of $15 to Dr. H. A. Ward of Nashville, Tenn., and the third of $10 to Dr. J. B. Lowry of Nashville, Tenn.

The next business before the Association was the election of officers for the ensuing year. Nominations being in order, Dr. A. Hudson placed the name of Dr. M. L. Hughes before the Association for the Presidency. Dr. Wm. Kelly moved that the nominations be closed and that Dr. Hughes be elected by acclamation. Dr. Kelly's motion carried and Dr. Hughes was conducted to the chair by Dr. S. M. Bloomstein and Dr. Hudson.

Next was the election of three Vice-presidents. Dr.

Bloomstein nominated Dr. A. Hudson of Nashville for 1st Vice-president; Dr. Nichol nominated Dr. G. S. Warren of Decherd, Tenn., for 2nd Vice-president, and Dr. Crockett nominated Dr. Mary R. Baker of South Carolina for 3rd Vice-president. Nominations were then closed and the Secretary was instructed to cast the ballot of the Association for the three nominees.

The next business in order was the election of a Secretary and Treasurer. Dr. Crockett nominated Dr. W. G. Frierson of Nashville, Tenn., the present Secretary. Dr. Bloomstein moved that nominations be closed and that Dr. Frierson be elected by acclamation. His motion carried.

Next was the election of an executive committee. On motion of the Secretary, the executive committee now serving, consisting of Drs. S. S. Crockett, A. L. Penington, T. G. Shannon and L. B. Graddy, be elected by acclamation. The motion carried unanimously.

The election of officers being completed, Dr. M. C. McGannon moved that the Association name some member of the class of '99 to represent this class at the next meeting. Dr. Nichol placed the name of Dr. S. H. Landrum of Lebanon, Tenn., before the Association. Nominations were closed and Dr. Landrum unanimously elected.

On motion of Dr. McGannon, the Association adjourned to meet the day previous to our next commencement.

W. G. FRIERSON, Secretary.

SECTION ON MEDICINE.

UNDER CHARGE OF W. L. NICHOL, M.D.,

PROFESSOR OF DISEASES OF THE CHEST, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; AND

E. G. WOOD, M.D., C.M.,

PROFESSOR OF PRACTICE OF MEDICINE AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF THE BRITISH MEDICAL ASSOCIATION, ETC., ETC.

TREATMENT OF TYPHOID FEVER.

In an article in the N. Y. Med. Journal for February 1, 1899, Dr. Aulde advocates the administration of arsenite of copper and nuclein in the treatment of enteric fever, and gives the following general directions: "Copper arsenite, one one-hundredth of a grain; nuclein solution, one minim.

The above tablet triturates to be given together, one of each, at intervals of three hours, beginning at six o'clock in the morning and continuing until nine o'clock at night. In urgent cases they should be administered at intervals of two hours for the day; and where the stomach is rebellious, or where the anticipated medicinal effect is not observed, the nuclein is to be given hypodermically in doses of five minims once a day, preferably in the morning, the injection being made at some indifferent point under antiseptic precautions."

The author also states that later observations show that better results are obtained by administering the nuclein solution in its original form, in ten minim doses. He claims that the copper arsenite "exerts an important influence upon the cellular structures and nerve supply of the small intestine, while the nuclein stimulates leucocytosis, enabling these cells to destroy or render inert micro-organisms and their products."

Dr. Aulde claims that under the use of these agents, enteric fever rapidly (in two or three days) loses its specific typhoid character and is converted into a "simple fever" which gradually disappears. He also states that relapses do not occur in cases treated by his method.

MEAT POISONING.

In an address on "The Present Knowledge of Outbreaks Due to Meat Poisoning," by Dr. Herbert E. Durham, of Cambridge, England, and published in the British Medical Journal (Dec. 17, 1898), the author insists upon the point that these outbreaks are really due to infection by living bacilli, and just as cholera and typhoid fever result from infection with probably virulent cholera or typhoid bacilli contained in the water or food swallowed, so eating meat contaminated by certain bacilli may infect the host with these micro-organisms and produce the symptoms seen in "meat poisoning." The symptoms are not produced by the organisms of ordinary putrefaction, the offending meat being usually of good appearance, smell and consistence. The special microbe concerned with these outbreaks is Gartner's bacillus enteritidis or bacilli allied to it, and this is found in the tissues and organs of the body.

During the investigation of a recent outbreak at Oldham, following the ingestion of veal pies, Dr. Durham found the bacillus enteritidis and corroborated the observations of others as to the serum reactions of these patients. He found that the serum of these patients possessed clumping properties upon the different varieties of the bacillus enteritidis even when diluted to one to one hundred, and in some instances to one to two hundred. Normal serum has no such effect even when diluted only one to twenty.

In the epidemic referred to fifty-four persons became ill as a result of eating the pies; four of these died. Other batches of pies made from the same animal produced no ill effects, and it was shown that the offending pies had been improperly heated in cooking and then had not been eaten till forty-eight hours had elapsed.

Dr. Durham concludes that, though the bacilli are destroyed by exposure to 70° C. for one minute, those in the centre of the pies were not subjected to a temperature high enough to kill them. This bacillus has been isolated from the cow and the calf especially, but also from the loose pig and goat; and Theobald Smith insists on the similarity between the hog cholera bacillus and the bacillus enteritidis. Gaffky has demonstrated the possibility of communication of the disease from the cow to man through the milk, but this mode of infection is probably rare.

The author concludes his paper by urging the thorough in-

spection of all animals used for food and the heating of the flesh during cooking at such a temperature and for such a length of time as will ensure the destruction of any micro-organism present.

SECTION ON NEUROLOGY.

UNDER CHARGE OF T. L. MADDIN, M.D.,

PROFESSOR OF NERVOUS DISEASES AND GENERAL PATHOLOGY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF AMERICAN MEDICAL ASSOCIATION, ETC., ETC.

BOOM.

The Century Dictionary tells us the recent American use of this word originated in the West and was made familiar in 1878. To go with a rush; become suddenly active; be "lively," as business; be prosperous or flourishing.

I. B. McCullagh says, in a letter to the editors of the Dictionary: When on the gun boats on the Mississippi River during the war, I used to hear the pilots say of the river, when rising rapidly and overflowing its banks, that it (the river) was booming. The idea I wished to convey was, that the Grant movement for the third term was rising, swelling (booming).

To go with a rush—often to prosperity and often to adversity, whether it is the river that is booming, commerce, politics or personal activity—the question that commands our attention from a medical standpoint is to note the effect of the present boom that is now on in the United States. It is the intoxication of American citizenship at the brilliant results of the late war with Spain; it has encouraged personal importance, vanity and invincibility; ready to invest in any hazardous speculation; cut loose from all of the anchors of prudence. It must be remembered that the fountain of this human booming-business is in the brain of the individual, and it takes a prudent pilot to navigate a tide beset with many dangers. The working capacity of the brain has its limitations, for it is built of many organs closely bound with commissures, each endowed with physical capacity and a psycological duty to perform, which under normal conditions

reaches a healthy result—a sane faculty of the mind. Inheritance often fixes a stigma upon the organic life of the brain that leads to functional vulnerability; or it may be acquired from some of the many forms of irregular life, making them the early victims to the strain that is put upon the brain in the "boom" of society, patriotism, politics and commerce, the ventures of speculation and the dissipation that it engenders, and the alienation from that anchor of virtuous citizenship and personal happiness called the sentiment of *Home.* All of these things are now embodied in the evolution that is being accomplished and stamped upon the personality of American citizenship. All of these disturbances, all of these new factors, all of these mental, emotional and moral factors give a new environment to which many will of necessity be made mentally very sick or confirmed invalids; in either case, it is classed under the generic term insanity—melancholy, mania, delusions, dementia, emotional. mental, moral, etc., all of which are but the deliveries of diseased physical organism, made so by the pressure of the speculative boom that is now on in the daily life of the individual and of the citizenship of these United States. It leads to degeneration of the organs of the brain, or of their individual neurons, or of molecules out of which they are built. Anything that blocks the channels of constructive metabolism (anabolism), the last link of which is nutrition, or anything that interferes with the disintegrating (catabolic) processes, interferes with the output of forces out of which vitality is evolved. It is from considerations of this kind that we get functional and organic insanity.

This booming business not only keeps the brain overworked and strained in the daytime and waking hours, but leads to insomnia and disturbed dreams that rob sleep of rest, recuperation and refreshment, making the night-time more exhaustive than the work of the day. It is thus that many neurotic and neurasthenic types of mental and emotional cerebration are engendered.

This booming experience in our national history is not only leading the country into wars and the possession of new and distant domain, and the subjugation of a people out of harmony from every point of view with our home-fold. But yet we propose to adopt them as foster children, teach them education, polite ethics, the English language and Christianity. And if they object to this method of civilization, they must be relegated to the school of military persuasion to

teach them the blessings of liberty under the formula of these United States: that all men are created equal, etc.

Heterogeneous and incompatible molecules never blend to make organisms out of which is evolved physiological functions, but rather pathological, whether it is physical, mental, or moral; if it pertains to the brain we call it insanity. Man is a molecule of humanity; homogeniety makes happy homes; good citizenship and loyalty to one's government, love, fellowship and patriotism, are the factors that give strength, vigor and stability. But heterogeneous citizenship made up of incompatible molecules of personality is never in harmony to healthy results, but rather discord, anarchy, rebellion, ruin and death of government. It is insanity in either case, and the booming business is in many cases the cause of it. It took centuries of patriarchial schooling to make a negro a self-sustaining citizen of these United States, and our good President Lincoln and his advisors were a little previous in graduating him to the degree of citizenship, when he was still in the preparatory department of learning how to be self-sustaining and a Christian control of his emotional nature, to fit himself for the duties of citizenship and take part in the making and administration of the laws of civilization. It takes many years of training to make the molecules of the brain to be shaped into that form of hereditary organism that will evolve honesty, equity and the welfare of humanity.

The citizens of the United States have another experience in trying to civilize, Christianize and citizenize another people who had a stereotyped molecular brain organism that evolved a personality which was so out of harmony with our people and with their civilization that the experiment of making a good citizen out of the Indian has proved a failure. The law of evolution requires centuries of contact with favoring environment before he is qualified to be a good companion and desirable citizen of Christian civilization. The different types of mankind are as diverse as the vegetation of different climates, and the laws of acclimation must be conducted with scientific precision. It depends upon the scientific precision with which the United States adjusts its methods of training the people of these new territories whether they will prove a blessing or a curse.

Booming is always running upon the line of danger; if it is in the physical elements of our surroundings, it is often the case that only the fittest of things can survive; if it is

in human endeavor, this work is accomplished by and evolved through the beautiful, delicate and wonderful organization of the nervous system; and it is liable to many catastrophies from over work, great strain and booming of whatever kind is running upon the danger line of molecular degeneration of neurons with perversion of their function—the excito-motor arcs, the sensori-motor arcs, the idio-motor arcs; or it may pertain to the faculties—volition, reasoning, emotional, morality, etc.; or, if it is in national endeavor, the danger line is in the direction of disloyalty, anarchy, political strife, rebellion, and endeavoring to harmonise and assimilate incompatibilities.

THE NEGRO AND INSANITY.

The following extract is taken from the "Alienist and Neurologist," addendum No. 2, to a paper contributed by T. O. Powell, M.D., Superintendent State Lunatic Asylum, Georgia, History of Southern Hospitals for the Insane.

"In only one particular alone does lunacy administration at the South differ from the same problem elsewhere in our country. What the race problem is to our whole section, so is the question of our colored insane to our specialty. Provision for this class has always been a separate and peculiar problem. Before the war there were, comparatively speaking, few insane negroes. Following their sudden emancipation the number began to multiply, and, as accumulating statistics show, is now alarmingly large and on the increase. This is not the place to enter into an inquiry as to the etiology, but only to recognize the fact and to show how earnestly State administrations are striving to meet it.

"We have been confronted with the question of providing for a class emerging from servitude, of different race, habits, instincts and training. The alien pauperism of the great centers of population, North and West, may in a measure represent our insane negroes, the burden of whose support has fallen upon their former owners, themselves struggling to rise from the impoverishment of war.

"Those authorities who have given not only the most thought to the subject, but who have also dealt with it practically in our asylums, have been unanimous in their opinion that the separation of the white and colored is to the advantage of both races. The distinction has been made for

social reasons alone, consequently we find to-day in most Southern asylums four departments, whereas in other institutions two suffice. Virginia and North Carolina have entirely separate hospitals in the center of the negro population near the Atlantic seaboard. This policy has not been deemed advisable in other States, partly for economic reasons, but largely because the negro population is more uniformly distributed.

"Even the existence of insanity in negro slaves has been questioned. But insanity was common enough to require special provision for the care of insane slaves by the provincial council of South Carolina in 1745, and the pressing need of means for their accommodation is shown by the early records of our asylums as they were successively established before 1860.

"Prior to the civil way in the asylums of Virginia, Kentucky, South Carolina, Maryland, Louisiana and the District of Columbia, colored insane were received as patients. In those days the accommodations for negroes were probably not adequate, but a generation ago our predecessors began the work, which we of a later day have in some States been able to carry to the consummation devoutly to be wished. Among the pioneers in caring for the insane negroes may be mentioned Stribbling and Galt of Virginia, Chipley of Kentucky, Trezevant and Parker of South Carolina, Stewart of Maryland, and Nichols of the District of Columbia.

"Following their emancipation the negroes have become subject to the same penalties that other races have paid for liberty, license and intemperance. Among these penalties insanity is not the least. A recent estimate based upon the records at the census office shows that brain disease in the negro, as compared with the white, has increased from one-fifth as common in 1850 and 1860, to one-third as common in 1870, and one-half as common in 1880 and 1890. Or, stated in another way, the ratio of insanity per one million of the negroes has risen from one hundred and sixty-nine in 1860, to eight hundred and eighty-six in 1890.

"Until a recent period the Southern negro was in a great measure exempt from insanity and tuberculosis. To-day, associated with insanity, we find tuberculosis alarmingly prevalent among the colored patients, especially females. As a race their mortality is greater than the whites. Medication is of little effect. The tendency of the disease is towards a

rapid and fatal decline. If we cannot cure, possibly we may prevent. To this end isolation of the tuberculous cases is the most rational method at our command."

VERATRUM VIRIDE IN PUERPERAL CONVULSIONS.

NAFTEL, ALA., March 9, 1899.

Prof. T. L. Maddin, Nashville, Tenn.:

DEAR DOCTOR—I remember hearing you lecture on veratrum in convulsions. I also read, not very long since, in the MEDICAL AND SURGICAL BULLETIN some remarks of yours on veratrum in puerperal convulsions. Soon after reading this I was called to an unusually severe case. The woman had hardly entered the first stage of labor and had had a number of very hard convulsions before I saw her. She did not regain consciousness between the seizures. Her tongue was badly lacerated. I could not stay with her, so I injected 20 minims of Norwood's tincture of veratrum, and left her. It was a day or two before she was delivered, but she did not have another convulsion.

I have a severe case of epilepsy in a boy fourteen years old. He has had it about seven years, and it has resisted the bromides, etc. Now, what I wish to ask you is this: will veratrum do any good in such a case, and if so, how, when and in what size doses?

Yours truly,

S. J. NAFTEL.

SECTION ON ABDOMINAL SURGERY AND DISEASES OF WOMEN.

UNDER CHARGE OF M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

INTUSSUSCEPTION.

Charles P. B. Chubbe, M. R. C. S., England, reports eight cases of laparotomy for intussusception in children of ages varying from five months to ten years, with six recoveries. He advises injections warm olive oil in all cases, and con-

tends this procedure makes operation easier. If after the injection the abdominal tumor disappears the patient may be put to bed, but must be carefully examined again in an hour or two, when if the tumor is felt operation should be at once performed. The use of injections has been brought into disrepute because of neglect to re-examine.—Pediatrics.

Dr. Henry Howitt, Guelph, Ontario, in Pediatrics, reports six cases occurring in his practice during five years in a population of 12,000 people. He operated successfully upon four. He believes that many attacks of this disease cause death with their being diagnosed by the attendants and that when the facts having reference to this disease become generally better known fewer deaths will be recorded as due to certain bowel affections and more lives will be saved by surgical means. He states no time should be lost by bowel inflation or fluid injection, as neither can do good.

Dr. Joseph Price of Philadelphia, in discussing Dr. Howett's paper, blamed both the general practitioner and the general surgeon; the former for lack of knowledge, the latter for eleventh hour surgery, and held both responsible for many deaths.

[Dr. Howett no doubt had more cases coming under his care than usually falls to the lot of a practitioner working in a 12,000 field, but he certainly strikes the key note when he insists on early surgery in these cases.—ED.]

TWO HUNDRED AND TWENTY-EIGHT CASES DIAGNOSTICATED APPENDICITIS IN WHICH SEVEN ERRORS OCCURRED.

The errors were made in (1) old typhoid fever complications; (2) peritoneal tuberculosis; (3) cancer of appendix; (4) adhesion and congestion of the appendix; (5) hysteria in a woman of seventeen; (6) pneumonia—the appendix was bound to an inflamed oviduct; (7) sequela of measles. The peritoneal cavity was filled with viscid lymph and the peritoneum was thickened with infiltration.

Apropos of these seven errors of diagnosis in two hundred and twenty-eight consecutive cases in which diagnosis was determined, I should like to inquire what other disease gives us so small an opportunity to go wrong? It seems to me that appendicitis is one of the most readily diagnosticated of all diseases. Four of these seven patients were promptly benefited by the operation and none were really harmed, because

the methods of operation that I prefer in appendicitis give patients very little to bear from the operation itself.—Robert T. Morris in the New York Medical Journal.

PERFORATION OF THE UTERUS DURING CURETTAGE.

Dr. George Elder in the Medical and Surgical Review of Reviews, after referring to the many accidents of the kind reported by different operators, details two cases occurring in his own practice. The patients, after a premature birth, had persistent metrorrhagia. Previous health was good. Under anesthesia Hegar dilators were used and a dull curette introduced. It passed up to the handle without meeting an obstruction and was felt under the abdominal parieties. The uterine cavities and vaginæ were packed with gauze and the patients recovered. The dilators no doubt caused the damage. The accident may be avoided by selecting properly shaped dilators, by ascertaining the direction of the uterus before their use, and by exercising great care, especially in cases in which the uterus is probably soft, as after abortions.

PERFORATION OF THE UTERUS BY SOUNDS.

Dr. Donald showed a uterus removed by vaginal hysterectomy after perforation by sounds. The cervix was being dilated preparatory to curetting; there was no resistance at any part and the sound passed easily 6 or 7 in. An examination of the abdomen showed that the point of the instrument was in the abdominal cavity. A No. 12 dilator was introduced with the same result. As it was evident that the uterine wall was perforated, and as the contents of the uterus were undoubtedly septic, the anterior vaginal fornix was opened up and the fundus uteri brought into view. Two large apertures which had evidently been made by the dilators were found in the fundus, and the uterine tissue was so friable that vulsellum forceps very easily caused tearing. Vaginal hysterectomy was performed as the safest method of treatment. Probably the degeneration of the uterine wall was due partly to frequent child-bearing and partly to septic processes following miscarriage.—Medical and Surgical Review of Reviews.

SECTION ON MEDICAL CHEMISTRY.

UNDER CHARGE OF J. M. KING, B.S., M.D.,

PROFESSOR OF CHEMISTRY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; CHEMIST TO STATE OF TENNESSEE.

POISON IN WALL PAPERS.

Dr. E. M. Chamot, of the Chemical Department of Cornell University, states, as a result of a chemical analysis of wall paper, which he has been carrying on several months, that nearly all wall paper sold at the present time contains arsenical poisons, some of them in large quantities.

TEST FOR MORPHINE IN MORPHINE HABITUES.

Collect about twenty ounces of urine from the suspected individual. If it has not an acid reaction, acidulate with dilute hydrochloric acid until blue litmus is reddened by it. Concentrate to about three ounces, and let it stand in a cool place for twelve hours, then filter. To the filtrate add sufficient sodium carbonate to render it alkaline; let it stand for twelve hours, filter and collect the precipitate, and wash this with distilled water made slightly alkaline with sodium carbonate, and dry. Digest the dried precipitate with pure alcohol at a gentle heat, and filter; evaporate the filtrate to dryness, dissolve the residue with dilute sulphuric acid, and test for morphine by the iodic-acid test, or other well known tests. By this method morphine can be obtained, says the author, from persons taking but very minute amounts of the drug.—Dr. S. Lett in Lancet, 1898; Ref. Am. Med. Surg. Bull., XII., No. 24, p. 1160.

A NEW URINARY DISINFECTANT.

The drug discussed by the author is known as hexamethylentetramin, prepared by union of ammonia and formaldehyd in solution. On account of the various ways in which this substance alters urine it has been named urotropin.

From a study of its action in several cases the following conclusions are presented:

1. Urotropin produces no untoward symptoms when administered in amounts of thirty grains per diem.
2. It renders an alkaline urine acid no matter what the cause may be.
3. It inhibits the development of the micro-organisms of ammoniacal cystitis and in this way clears up cloudy urine.
4. It is indicated as a preparatory disinfectant in operations upon the urinary tract; in pyelitis, cystitis and other inflammation of the urinary tract irrespective of their cause, in phosphaturia and in other conditions tending to formation of urinary calculi.—Dr. R. W. Wilcox in N. Y. Med. News, LXXIII., No. 20, p. 609.

THE TOXIC ACTION OF THE URINE.

As a result of his researches, the author comes to conclusions greatly at variance with those of Bouchard. In their power of producing convulsions or in their action upon the excitability of the brain cortex, the early and evening urines do not differ in a manner to warrant the assumption of the toxic sleep theory. Hence, no antagonism between the physiological effects of night and day urine can be demonstrated. The convulsions often occurring in consequence of injection of urine are not the expression of an excitation of the brain cortex, for they also occur in animals in whom the hemispheres have been removed. The most toxic agents of the urine are its potash salts. The action of the urine, therefore, depends chiefly upon the fact that it paralyzes the heart. A part of the toxic action must, however, be attributed to an organic urinary constituent. The author protests against the tendency of the Bouchard school to draw conclusions from the degree of urine toxicity—determined by means of intracirculatory injection of urine into rabbits—as to the amount of toxins produced in the human body and from this the metabolism.—Dr. A. Beck in Arch. f. d. ges. Phys., lxxi., p. 560; Ref., Schmidt's Jahrb., Bd. 260, p. 106.

SOCIETY MEETINGS.

THE MIDDLE TENNESSEE MEDICAL ASSOCIATION.

For the meeting of this live society, which will be held in Franklin, Tenn., May 18 and 19, the president, Dr. S. T.

Hardison, of Lewisburg, has appointed the following committees:

Essays—Dr. J. A. Witherspoon, chairman, Nashville; Dr. L. E. Ragsdale, Columbia; Dr. A. B. Cooke, Nashville; Dr. C. N. Cowden, Petersburg, and Dr. Wm. D. Sumpter, Nashville.

Arrangements—Dr. J. S. White, chairman, Franklin; Dr. Reginald Stonestreet, Paragon Mills; Dr. J. P. Hanner, Dr. D. B. Cliffe, Jr., Dr. J. S. House, Dr. John B. White, Dr. James Shannon, Dr. Samuel Henderson, Dr. Hardin Cochrane, Dr. W. N. Gentry, all of Franklin.

Credentials and New Members—Dr. J. W. Grisard, chairman, Winchester; Dr. K. S. Howlett, Bigbyville; Dr. Garrett White, Chapel Hill; Dr. Leon L. Sheddan, Williamsport, and Dr. G. W. Moody, Shelbyville.

Complaints and Offenses—Dr. Robt. Pillow, chairman, Columbia; Dr. E. W. Ridings, Dickson; Dr. J. B. Murfree, Murfreesboro; Dr. C. A. Abernathy, Pulaski; Dr. J. B. Cowan, Tullahoma.

The following papers have already been promised:

"The Relation of Pseudo-membranous Croup to Diphtheria," Dr. C. C. Abernathy, Pulaski.

"Epidemic Cerebro-spinal Meningitis," Dr. K. S. Howlett, Bigbyville.

"Toxic Amblyopia," Dr. J. A. Edwards, Columbia.

"Complications and Sequelae of Measles, with Reports of Interesting Cases," Dr. Stephen Thach, Dechard.

"Wounds of the Skull, with Report of Five Cases," Dr. E. W. Ridings, Dickson, Tenn.

"Report of Surgical Cases," Dr. W. K. Sheddan, Columbia.

"Report of Surgical Cases," Dr. M. C. McGannon, Nashville.

"Placenta Previa in Country Practice," Dr. L. L. Sheddan, Williamsport.

A paper, Dr. E. G. Wood, Nashville.

All communications, inquiries, titles of papers, etc., should be addressed to the secretary, Dr. Paul Clements, Nashville.

MEDICAL SOCIETY, STATE OF TENNESSEE.

The Medical Society of the State of Tennessee held its regular meeting in Nashville, April 11–13, 1899. Besides the essays and discussions, the action of the Legislature in

reducing the powers of the State Board of Medical Examiners was fully discussed and the following resolutions adopted:

"Resolved, that the Medical Society of the State of Tennessee, numbering in its active workers more than 400 practicing physicians of the State of Tennessee and representing the large majority of the 3,000 or more physicians of the State, deplores the action taken by the Legislature in amending the medical statutes of the State and the still further effort to repeal all medical regulations heretofore enacted by the State Legislature from 1889 to 1897.

We would, as the representatives of organized medicine, respectfully ask that no further steps be taken to repeal the medical laws of the State, feeling that such action would be a gross injustice done the medical profession of the State and a damage done her citizens in turning loose upon the different communities of the State a horde of incompetents who are now gathering from other States where they have been driven to prey upon the people of this State."

"Whereas, in view of the false and malicious charges indiscriminately made by the opponents of higher medical education against the State Board of Medical Examiners as a body and more especially against our honored members, Dr. T. J. Happell of Trenton, Dr. Robert Pillow of Columbia, and Dr. Heber Jones of Memphis; therefore, be it

Resolved, that the Medical Society of the State of Tennessee, in regular session assembled, does hereby place on record its indorsement of these gentlemen as being in every way worthy, honest and honerable members of the regular medical profession, and who are qualified in every way for the highest honors it ever has or may accord them."

The following officers were elected:

President, D. E. Nelson, Chattanooga; Vice-president for East Tennessee, G. M. Bagemore, Cleveland; Vice-president for Middle Tennessee, G. W. Moody, Shelbyville; Vice-president for West Tennessee, M. M. Smith, Cedar Chapel; Secretary, W. D. Haggard, Jr., Nashville; Treasurer, W. C. Bilbro, Murfreesboro.

Knoxville was selected as the next place of meeting.

THE

MEDICAL AND SURGICAL BULLETIN,

OFFICIAL ORGAN,

Alumni Association, Medical Dept., University of Nashville.

NASHVILLE, TENN., MAY, 1899.

UTERINE FIBROIDS AND THEIR TREATMENT.

BY M. C. McGANNON, M.D., C.M.

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

Fibroid growths of the uterus, owing to the advances made in abdominal surgery, are of much greater interest to the practitioner, since we have learned that we may enter that sanctuary, the peritoneal cavity, if we have become as high priests, possessed of knowledge, and have bathed and put on clean raiment. As yet the science of medicine has not proven to us the actual causes producing these growths, but we have learned that fibroids are benign; that they may occur before puberty; that they grow in the uterus that has not borne children as well as in the one that has undergone the enlargement incident to pregnancy. These tumors are associated with menstrual life as a rule, and they continue to enlarge until the menopause is reached, when they usually cease to grow, and oftentimes atrophy. This does not always occur. They sometimes continue to increase in size after the climacteric, and attain such proportions as to threaten life unless the case is relieved by operation.

Fibroid tumors begin in the wall of the uterus and either remain there as interstitial fibroids or grow into the uterine cavity, becoming submucous, or into the peritoneal cavity, when they are known as subserous. It is essential to remember these various situations in which the growth is found, since thus only can we understand and explain the symptoms associated with different cases.

Symptoms: Hæmorrhage is the most common symptom of these tumors, yet it is absent in many of the subserous growths, and present in nearly all of the interstitial and submucous ones. It is dependent, to some extent, on the position of the fibroid. The bleeding may be only a profuse flow at the regular period, or it may be a hæmorrhage, between the menstrual epochs, that may be so severe as to exsanguinate the victim, or it may be a slight flow that continues irregularly over a more or less lengthened period of time.

Leucorrhœa is present with nearly all fibroids, and is caused by an outpouring from the congested utricular glands. It is more or less watery in character, and may be very profuse.

Pain is a symptom in most cases. It may be caused by the pressure of the growth upon the surrounding parts, or it may be the result of endometritis. When due to inflammation of the endometrium the pain may be referred to the sacrum or to the head. When due to pressure its situation will depend upon the part pressed upon. It may be in the bladder or the rectum, in the hip or down the leg, or even in the kidney, if the calibre of the ureter be narrowed.

Tumor.—This cannot always be made out by the patient, and as a symptom complained of is by no means constant.

The diagnosis is to be made by the history of the symptoms described plus a physical examination. The tumor, if large enough, may be felt through the abdominal wall, as a hard mass, if it be a single fibroid, or as a number of more or less rounded irregular masses in the multinodular variety —vagino-abdominal palpation—that is, with one or two fingers of one hand in the vagina, and the fingers of the other hand over the abdominal wall, the tumors may be better outlined, and their situation and connection with the uterus made out. When the tumor is interstitial it may be felt bulging the uterus at one point, or one portion of the uterus may be unduly enlarged, while its canal will be deepened. When the tumor is of the submucous variety the general enlargement of the uterus, plus the symptoms already detailed, will be strong evidence in favor of fibroid, and all doubt may be removed by dilating the cervical canal, and introducing the finger into the cavity of the uterus.

A differential diagnosis must be made between uterine fibroids and pregnancy. As a rule this is not difficult. Enlargement and pigmentation of the breast maybe present in fibroids, and a flow is not inconsistent with pregnancy. The growth

in pregnancy, however, is rapid and regular, while fœtal heart sounds and movements of the child are evidences that, if present, cannot be controverted, and are symptoms to wait for when in doubt.

Cystic disease of the ovaries, or broad ligament, as a rule can be recognized, though mistakes have occurred. The broad ligament cyst, especially if it has undergone purulent changes that have thickened its walls, may offer some difficulties. Yet the situation and the history and the indistinct sensation of fluctuation imparted to the examining finger should be sufficient to clear up the diagnosis.

Changes in the growth may take place. Those most to be dreaded are suppuration, and malignant suppuration I have seen occur after the use of electricity, and after therapeutical abortion. Death resulted in one of these cases.

Sarcoma is a rare change, though the fact that the fibroid is made up of connective tissue and sarcoma is also a connective tissue growth, makes it quite possible.

Prognosis: Some fibroids do not attain large size, give no symptoms and do not require attention, while others, even of small size, because of their situation or symptoms, threaten not only the well-being of the sufferer, but also her life. Each case is a study in itself, and only after a careful consideration of all the facts can a prognosis be made. No hard and fast rules can be laid down to guide us in our prognosis.

Treatment: Drugs have no effect upon this growth. They may and often do control the hæmorrhage. Ergot is the best for this purpose. It may, even in interstitial fibroids that tend to become subserous or submucous, hasten them towards the one or the other situation, but it does not cure.

Electricity, once thought well of, has not stood the test of time, though its power in controlling hæmorrhage is recognized. To-day our only logical treatment for fibroids is either to let them alone and take care of the general health, or attack them surgically. The question is, then, when shall we operate, and what operation shall we do?

The indications for a surgical intervention are not always of a positive character, but there are a few so pronounced that we may give them as demanding operation. They are:

1. Hæmorrhage which threatens the life of the patient and which cannot be controlled.

2. Pressure of the growth upon the adjacent organs, so that their functions are interfered with. When the ureters are the structures pressed upon, the damming back of the urine,

may cause serious disease of not only the ureter and pelvis of the kinney, but also of the parenchyma of that organ. Complete obstruction of the rectum does not occur even when the pelvis is so filled by the growth that the bladder is forced above the umbilicus. The constant filling and emptying of the bowel forms a depression upon the tumor that allows the escape of soft fœcal matter.

3. Very large fibroids that press upon the intestines and more or less fill up at the abdominal cavity, should be removed.

4. Ascites, when produced by the growth, is a sign that indicates operation.

5. Rapid growth of soft fibroids in early menstrual life, or after menopause, calls for their removal.

6. Suppurative or malignant change in the growth.

Besides these conditions that demand operation there are others that make a surgical procedure advisable. It may be called for when the pain makes life a misery, when any result of the presence of the growth prevents the patient from following her necessary avocation, and when because of mental worry, the patient's condition or the sufferer herself demands operation.

The operation to be performed is to be determined by the judgment of the operator, after due consideration of all the facts presented by the individual case. In a broad way, there are but two operations suitable for these cases. They are myomectomy and hystero-myomectomy. Removal of the ovaries, having for its ultimate result the production of artificial menopause, to be followed by diminution in the size of the growth, with a dissipation of the symptoms complained of, is an operation from which we can promise nothing. It is by no means certain that the removal of the ovaries will either stop the increase in the size of the tumor, or produce a cessation of hæmorrhage or pain.

Tying the uterine arteries with or without a more or less large part of the broad ligament has no more to recommend it, and probably not so much, as the ovariotomy. Myomectomy (the removal of the tumor alone) is the ideal procedure when it can be accomplished safely, and at the same time leave a uterus that is capable of performing, normally, the function of menstruation. It is indicated in small sessile and intramural tumors, even though they be not single. It should not be done in the presence of pus in the pelvis.

Hystero-myomectomy means the removal of the uterus

with the tumor, and is the operation to be chosen in all cases demanding operation in which a myomectomy cannot be safely performed. The danger from this latter operation are even greater than the former.

Operation: In many patients suffering with uterine fibroids because of hæmorrhage or pain, or interference with the functions of the abdominal viscera, the general health is much impaired. Thin persons may be much improved and sent to the operating table stronger by being put to bed and placed upon a treatment that will tend to restore their lost vitality.

All preliminary preparations for these operations, as for all other surgical procedures, should be made with the strictest precaution as regards asepsis. Antiseptic precautions must not be relied upon. Cleanliness alone should be our guiding principle, though antiseptic measures are of value.

The anæsthetic should be administered by an anæsthetizer who is accustomed to giving it, and in whose hands it is safe. It is not safe when given by students, druggists and inexperienced doctors. My observation and practice has led me to employ chloroform, in most cases, when the administrator is a man whose experience with the drug qualifies him to undertake the responsibility of its administration. The abdomen should be incised on the centre line, and the opening should be sufficiently large to expose the field of operation. The bladder is often times carried well out of the pelvis, and may reach almost to the umbilicus. To avoid wounding this viscus the cut through the peritoneum should be made high up and with care. From this initial opening the incision may be carried up and down a sufficient distance. After the abdomen is opened a careful determination of the landmarks, the adhesions existing and complications present should be made before determining upon the exact way in which the work shall be done.

If a myomectomy should be decided upon, every precaution should be taken to prevent hæmorrhage, since it is the chief danger. If the tumor is pedunculated, an incision on either side of the pedicle, uniting at the ends, will easily remove the growth and leave the raw surfaces, so that they may easily be brought together by sutures.

If the tumor is sessile or intra-mural, an incision must be made through its capsule and the mass shelled out. Deep sutures will be necessary to close the opening.

If hystero-myomectomy be found necessary, ligation of

the ovarian artery on one side, followed by division of the broad ligament between a clamp placed between it and the ligature, should be the first step. The bladder should then be dissected free down to the cervix uteri, and the uterine artery secured on the side of the divided broad ligament. All bleeding will be thus effectually controlled. The cervix may now be dissected out of the vagina, or cut across, and the uterine artery of the opposite side brought under control by clamp or ligature. The whole mass may then be easily rolled out from the abdomen, the remaining ovarian artery ligated and the tumor cut away.

All bleeding points must now be sought for and brought under control; the separated layers of broad ligament brought together by suture. The peritoneum reflected from the bladder should be united to that, covering the rectum so that all bared surfaces may be covered. Drainage is not necessary. The abdominal incision may be closed by any method that will approximate the several layers in such fashion that they will make a strong wall.

The operation at times, because of complications, is very formidable, but the mortality, with experienced operators, is small. The after treatment differs but little, if at all, from that demanded in other abdominal work.

Quiet should be maintained, and the friends and relatives, as far as possible, excluded for several days.

Until all nausea has ceased, nothing should be given by mouth. When the stomach is settled water may be given freely. The nourishment, until the bowels have acted, should consist of diluted milk, soups and broths. The bladder must be emptied, by a catheter if necessary, every two hours.

On the second day the bowels may be moved. A grain of calomel each hour, until nine have been given, and then in six hours from the last dose one drachm of magnesium sulphate, dissolved in a small quantity of hot water, will usually suffice. If necessary, the magnesia sulphate should be repeated each hour until it acts. After twenty-four hours the patient may be turned upon her side. The sutures should be removed about the twelfth day and the patient allowed up at the end of three weeks.

REMARKS ON PELIOSIS RHEUMATICA AND REPORT OF A CASE.*

Synonyms: Purpura Rheumatica. Schönlein's Disease.

BY H. S. WARD, M.D., NASHVILLE, TENN.

This is not a new affection and is not so rare, but any general practitioner is likely to be called to see a case at any time. It is rare in children, being most commonly met with in young adult males. As a rule it is not fatal unless there is some complication.

This remarkable disease, as its name implies, is a hybrid, partaking of the nature of two diseases—purpura and rheumatism. It may not be a hybrid in etiology, but it is in clinical history. Since long years of research in two such common diseases as rheumatism and purpura has failed to find their direct cause, it is easy to see the difficulty in this rarer disease with its dual nature. Is it a distinct disease? or is it one disease engrafted upon another? or is it a peculiar manifestation which any severe blood dyscrasia may exhibit? In reviewing the literature upon this subject one may be convinced that any one of these is the true answer. If we should find any one of these propositions to be true, we have reasoned in a circle and still ask ourselves the direct cause of peliosis rheumatica.

Litten in a report upon this subject thinks the petechiae due to something complicating rheumatism, usually endocarditis. He lays special stress upon its frequency in following endocarditis or gonorrhoeal rheumatism, citing three cases gonorrhoeal in type to prove the truth of his theory.

Diehl believes all the forms of purpura one and the same affection, differing only in severity and local manifestation. To convince you he mentions a case of purpura simplex, which later became rheumatoid in form.

Mackenzie, in an article in a British journal, considers it to be a blood change depending upon many causes, and main-

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tains that urticaria is nosologically closely allied to it. He suggests that peliosis rheumatica be spoken of only as an expression of rheumatism, as he would arthritis, endocarditis, chorea or erythema nodosum, although he is forced to acknowledge that many cases are purely hemorrhage from first to last.

Shepherd of Montreal speaks of a case of acute rheumatism in which there was a purpuric eruption following three twenty grain doses of salicylate of soda, which must have been peliosis instead of a salicylate dermatitis.

Johnson reports a case in the Medical News, January, 1898, in a poorly developed anemic boy of twelve years who had pains in right knee, left elbow, back and abdomen, with slight swelling of the joints and moderate fever. He had several exacerbations marked by paroxysms of colic with or preceded by rheumatic pains in the joints and succeeded by the purpuric eruption.

Osler does not regard purpura as a disease, but as a symptom which occurs in very many diseases. In his late edition of practice he says: "Schonlein's peliosis is thought by most writers to be of rheumatic origin, and certainly many of the cases have the character of ordinary rheumatic fever plus purpura. By many, however, it is regarded as a special affection of which the arthritis is a manifestation analogous to that which occurs in haemophilia and in scurvy. The frequency with which sore throat precedes the attack and the occasional occurrence of endocarditis or pericarditis are certainly very suggestive of true rheumatism." He has seen peliosis complicating chorea. He also mentions urticaria and albumenuria as frequently present in peliosis.

Tyson, like Osler, considers purpura a symptom and not a disease. Under arthritic purpura he mentions three forms—simple arthritic purpura, peliosis rheumatica, and Henoch's purpura. He finds peliosis the most fatal form, often accompanied by urticaria and complicated by nephritis. He reports a remarkable case seen by Agnew, Osler and himself in which hemorrhagic nephritis with uremia hastened a fatal termination.

Holt, in writing of peliosis rheumatica, states that the purpura is simply a complication of the rheumatism and that urticaria is likewise often present.

Wood and Fitz offer nothing new, mentioning the often associated urticaria, frequent complicating hematuria, and

place some stress upon its remarkable tendency to recurrent attacks.

A French bacteriologist thinks he has found the germ which causes it, but it is not certain. So, for the present, we shall leave etiology with the bacteriologist and pathologist.

Certain we are that there is a pretty definite set of symptoms which we call peliosis rheumatica and that we may meet them at almost any time. But, worst of all, no specific remedy has been found. Calcium chloride in large doses has its believers, arsenic in ascending doses its adherents; but neither of these is sovereign, so we must go on treating the symptoms, leaving much to kind nature and hoping that therapeutics or serum-therapy may come to our rescue and the relief of our patients.

REPORT OF CASE.

Past history: L. P., a yellow negress, medium size, age nineteen, reared in Nashville; resides in a basement; makes her living by washing and ironing; has had plenty to eat, including fruits, vegetables, meats, etc. Began to menstruate at sixteen, had her periods regularly, flowed about four days, and suffered no inconvenience. Bore a child at seventeen which lived but six weeks. Cause of its death not known. Has had no miscarriages. Has enjoyed good health all her life except frequent "spells," which must have been true epilepsy. She would lose consciousness, bite her tongue, froth at the mouth; has a scar on her forehead due to an injury received by falling in one of her "spells." These began when she was nine years of age and occurred quite frequently, but came less often of late years. Never had a convulsion during her pregnancy, but they returned two months after delivery and occurred about once per month up to five or six months ago, since which time she has been free of them. She was not a bleeder and showed no signs of having had syphilis.

Family history: Her mother died seven years ago of "child-bed fever," having given birth to a "still-born" infant. Her father died four years ago, cause unknown to her. She was the third of nine children, all of whom are dead except one older and one younger brother, both of whom are well. Does not know cause of death of other children.

Present illness: She was admitted to the Nashville City Hospital on Saturday, January 28, 1899, telling the following

story: On the preceding Monday she had trimmed her hair and gotten wet. On Tuesday morning got up with a headache, a peculiar pain in her abdomen, nausea and vomiting, and slight diarrhoea. Tuesday night an itching rash came out on her legs. Thursday she noticed that her left hand was swollen and painful. Friday the right foot and leg was in the same condition as left hand. Saturday all these symptoms had grown worse and the upper lid of right eye was painful and swollen.

Condition when admitted to the hospital: The above symptoms were exaggerated. There was marked tenderness over the hot and swollen joints of left hand and right foot and ankle. The upper lid of right eye was hot, red and so swollen as to close the eye. The whole face was somewhat edematous. Tongue light brown coated, gums a little sore but not spongy, lungs and heart normal. Abdomen slightly distended with some tenderness. Nausea, vomiting, pain in abdomen with slight diarrhoea had persisted from the first. No blood in vomited matter or stools at first. Pelvic organs normal; urine normal. The rash had almost disappeared. All that remained resembled urticaria. Pulse eighty-eight, respiration twenty-four, and temperature 100° F. Her body was very well nourished, no apparent anemia, and she possessed fair intelligence. Pain in the swollen parts, marked pain in abdomen, persistent nausea and vomiting were the symptoms for which she sought relief. These with her rash and previous history of urticarial attacks, caused me to think it a case of angio-neurotic edema. On the following morning, Sunday, her rash had become slightly purpuric and there had appeared some blood in her stools, and the true diagnosis of peliosis rheumatica was made.

How the case progressed: Lungs and heart continued normal. Urine, upon microscopical examination and chemical tests, showed no pathological change during the first few days. Owing to her persistent vomiting only liquid nourishment, and that in small quantities, could be retained. There was intense thirst, but even water was often rejected. In fact, milk punch or beef juice was more often retained than water. Vomited matter at times contained small quantities of blood. Rectal feeding was impossible, as diarrhoea continued troublesome from first to last. During the first few days she passed considerable blood in solution, no clots. Later, stools became grayish without blood stains. Pain in abdomen continued, tenderness on pressure and some meteor-

ism, but no marked distention at any time. Pain in joints became less severe and the swelling gradually subsided. There was no epistaxis, no sweats or rigors, no delirium. She slept but little, but was always quiet and rational. There was no return of the urticaria. The purpuric spots multiplied. Late in the attack the lower limbs were crowded with purpuric spots. On the hips and gluteal regions these coalesced until there were spots as large as the palm. Petechiæ and ecchymoses appeared upon the arms, about the face, upon the ears and here and there upon the trunk. Temperature reached 102° on February 3d and 6th, ranging most of the time from 98° to 101°. Pulse from 68 to 130; was above 100 after January 30. Respiration from 20 to 28. Blood was not examined, but she became markedly anemic.

Medicine seemed to be of no benefit. Mild chloride followed by a saline on the first night in hospital only intensified her nausea and vomiting and aggravated her diarrhoea. Oil of wintergreen seemed to control the pain in her joints, but was withdrawn owing to the condition of her stomach. Morphine gave but little rest. Purpura increased notwithstanding large doses of arsenic and iron. Strychnine did not strengthen her failing heart. Not sufficient nourishment could be retained to sustain her wasting frame. She grew weaker and weaker and her pulse feebler and feebler until on the night of February 8, the fifteenth day of her illness, she died. We were unable to make out the direct cause of her death, so a post-mortem examination was made.

The necropsy: The lungs and the heart with its valves and coverings appeared to be normal. Almost the entire surface of both the large and small intestines was of a dark color as if there had been subserous hemorrhage followed by gangrene with numerous adhesions. In breaking up the adhesions some perforations were found. One or two in lower portion of colon must have taken place before death and nature had attempted to wall them off. The others were perhaps made by breaking up adhesions. Mesenteric glands were enlarged. No marked changes in the stomach. Liver and spleen enlarged and congested. The kidneys were enlarged and congested and looked as though there had been an acute nephritis. Cranium was not opened. All other points of interest noted are brought out in the pathological report.

PATHOLOGICAL REPORT—BY DR. E. B. SANGREE.

Liver shows slight round-celled infiltration in its interlobular regions.

Spleen is markedly congested and has small hemorrhages scattered through its substance.

Heart and kidneys not examined.

Small intestine shows subserous round-celled infiltration.

Peritoneum thickened.

At point of gangrenous looking intestine the mucosa has disappeared, its place being taken by a thick layer of leucocytes, interspersed with a few fibers, the inner surface being necrotic.

The submucosa is greatly thickened, ingested and infiltrated with leucocytes.

The condition of the peritoneum is similar to that noted above, but more marked.

Pathological diagnosis—Old and recent peritonitis, ulcerative enteritis.

TREATMENT OF STRANGULATED INGUINAL HERNIA.

BY JAMES B. LOWRY, M.D., NASHVILLE, TENN.

The case which prompted the selection of the above subject for this essay is younger than any I have been able to find recorded as having been submitted to operation for the radical cure of inguinal hernia, which in this case was strangulated.

The child, white, male, aged two months, was well developed and had always been healthy. Monday, his mother, on making his toilet after he had had a severe fit of crying, noticed a small tumor in the right inguinal region. It at first alarmed her, as it had never been seen before, but it soon disappeared and she gave it little thought until Thursday, when it was again noticed, but failed to disappear as it had done before. He continued to cry as if in excruciating pain. Vomiting was severe and his bowels failed to respond to the usual purgatives. His mother being very poor, all the household remedies were tried before sending for a physician, which was done about midnight. By the time the physician arrived the child had become somewhat quieter.

After the mother had detailed the history of the case, recognizing the condition upon examination, he made slight effort at reduction by taxis, but failed and directed that the patient be taken at once to the Plant System Hospital, then located at Gainesville, Fla.

Again attempting reduction by manipulation and failing, Dr. S. L. Taylor, who was at that time the house surgeon, prepared for operation at once. By the time the child was ready to go under the anesthetic he seemed much easier than when first seen, but was covered with a cold sweat, his respiration was frequent and shallow, and his pulse weak, thready and very rapid. He was suffering profoundly from shock. It seemed likely that he would not be able to withstand the additional shock of an operation and would die on the table. As it was his only chance for recovery, he was put under the

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influence of chloroform. Taxis was again tried and failure again resulted. The parts were asepticized in the usual manner and an incision about one and three quarter inches in length was made in the long axis of the tumor with its center over the external ring, exposing the sac, which was opened and a sero-sanguinous fluid escaped. The gut was a dark wine color with a few greyish spots scattered over its surface. No adhesions were present. The constriction was relieved and a small portion of omentum which had been strangulated was ligated and cut off. After holding hot applications to the gut for a short time its viability seemed sufficient to warrant its return into the abdomen. The cord and testicle were also found to suffer from the stricture, the latter having even less vitality than the accluded portion of the gut and castration was imperative.

The wound was closed in the usual manner. The dressing ordinarily applied to an adult could not be applied in this case for the reason that it would soon become infected by the passage of urine and fœces, so an iodoform collodion dressing was made, thereby hermetically sealing the wound. Union by first intention was secured throughout and the stitches were removed on the seventh day. His recovery was not marred by a single complication.

This case is especially interesting because the patient was so extremely young and because of the presence of an unusual complication, gangrene of the testicle. The majority of our cases of strangulated hernia, however, will not have the history of this one and it will be well to consider the management of some of the conditions that may be met with.

A condition so violent and rapid in its course cannot be treated in a careless or timid manner, but must have prompt, decisive and skillful management. As it comes under the class of emergency cases, every physician should be able to institute, without a moment's hesitation, the proper treatment. Before operative measures are resorted to, taxis and every means that will assist it should be employed. Place the patient in bed on his back with his thighs flexed and the foot of the bed raised, prohibiting all food. Reduction may be attempted by grasping the neck of the sac with one hand to steady it and making gentle pressure with the other, attempting to replace first the last portion that descended. In the direct variety pressure is made backward and a little upward, while in the oblique it is made backward, upward and outward. Extreme care must be taken in employing taxis.

Should this fail to reduce it place an ice bag over the hernia and give a hypodermic injection of morphia. A sufficient amount should be given to produce its physiological effects, a half grain if necessary. If within an hour pain has not subsided, the parts somewhat relaxed and taxis again fails, another dose of morphia may be given, the size of the dose varying according to the requirements of the case. Manipulation is to be employed for a few minutes at intervals with the greatest care in order that the intestine may not be injured. When this is successful the mass will be felt to gradually diminish in size, and, if it is composed of bowel, will slip into the cavity with a gurgle and afford immediate relief.

The patient's condition may at any time demand that the line of treatment be changed and a more heroic procedure resorted to. If at the end of six or eight hours all efforts have failed, the morphine having been pushed to its limit and only short intervals between the applications of the ice bag, it is useless to delay surgical interference any longer. This line of treatment cannot be followed in all cases and should not be attempted in cases where strangulation has existed over forty-eight hours, in cases where the hernia has previously been reducible, in cases where collapse and gangrene are present and delay is dangerous, and in cases occurring in very young children. The last two contra-indications were present in the one just cited.

Having obtained the consent of the patient or that of his friends to an operation, everything is made ready for it. He is placed deeply under the anesthetic in order to obtain complete relaxation, and with his head and body lowered a final attempt at reduction by taxis is made. If successful, put him to bed, place a compress over the inguinal region and retain it in position by a spica bandage firmly applied. Give no solid food for a week and let the bowels remain quiet for several days.

Success does not always follow the disappearance of the mass under manipulation. It may force the peritoneum from the abdominal wall around the opening and allow the hernia to fall between the detached peritoneum and the parietes; it may force both sac and strictured bowel into the cavity together without relieving the stricture; a gut may be strangulated by adhesions and its return into the abdomen will not afford relief; last, but not least, the gut itself may be ruptured.

If failure again be the result, herniotomy is to be performed at once, thus subjecting the patient to the anesthetic only one time. No elaborate display of instruments is necessary to perform this operation. Hæmostats, dissecting-forceps, a scalpel, a Cooper's hernia knife, or what is a very good substitute, a probe-pointed bistoury, scissors and needles, are all that are required. The inguinal region and surrounding parts must be shaved and thoroughly asepticised. An incision about three inches in length is made parallel with the long axis of the tumor, its center corresponding to the neck of the sac. The old incision of scultetus, made by pinching up a portion of the structures overlying and at right angles to the axis of the hernia and transfixing them, presents no advantages over the ordinary incision. It is useless to attempt to dissect down, identifying each layer, and it is often impossible. By careful incision cut down to the sac, which can usually be readily distinguished from the overlying structures by the layer of fat covering it and by feeling the two distinct layers when they are pinched up and rolled between the thumb and finger. Not much importance can be attached to its normal pearly, glistening appearance, as it is so often inflamed. Being careful to include only the sac in the grasp, it should be held up from the gut and nicked between forceps. A fluid will escape, varying in character according to the condition of the included mass. It is a somewhat dangerous procedure to follow the usual advice and open the sac on a grooved director because of the possibility of puncturing the gut, the condition of which has not yet been ascertained. But the opening should be enlarged sufficiently while held away from the bowel to admit the finger, and on this as a director the sac laid open its full length. The contents should now be thoroughly examined. Ascertain the character of the fluid, its color, its odor; estimate its quantity and whether or not mixed with fœces; the color of the gut, whether a deep red, wine colored, covered with grey spots or greenish-grey throughout, whether it is lustreless or not, and whether it is still intact or perforation has occurred. If a suspicion of sepsis is found the sac must be thoroughly washed out with hot sterilized water before the stricture is relieved. The finger, dorsal surface downward, is inserted until the nail is within the constriction. A hernia knife is passed flat along its palmar surface until within the stricture. Being careful the gut is not overlapping its cutting edge, it is turned up and the constricting band cut sufficiently to re-

lieve the strangulation. In the direct variety the cut should be upward and inward to avoid the deep epigastric artery; in the oblique, upward and outward. It should be borne in mind that in the acquired variety the constricting band is usually very narrow, while in the congenital it is likely to be broad and the incision has to be carried higher up to relieve the strangulation.

If omentum is found in the sac, it must be ligated and cut away, but if a large portion is to be disposed of it should be ligated in sections. Should it be adhered to the neck of the sac these adhesions must be broken up so that the stump can be passed into the abdominal cavity free. Great care and judgment must be exercised in the management of the gut. It should be pulled down a little in order to examine it at the point of strangulation, as it is often necrosed to a greater extent here than at any other point, in all cases where the gut is bent upon itself and adhered, is adhered to omentum, or is adhered to the sac. Sometimes, however, the patient's condition will not permit so much time being expended as would be required in breaking up old strong adhesions, and in this case the stricture must be relieved and the wound closed if the parts are in a condition to be left, otherwise the wound is left open and provision made for drainage. Should a wound of the intestine accidentally occur during the course of the operation, it will, of course, be closed in the usual manner.

If, however, there be a suspicion as to its viability and the advisability of its immediate return into the abdomen is questioned, cover it with gauze sponges wrung out of hot sterilized water and await results. If in from five to fifteen minutes no signs of returning life appear, one of three steps must be taken:

First—Treves advises, "when the bowel is in what may be termed a doubtful condition it had better be reduced into the abdomen. Such a coil of bowel seldom travels far from the hernial ring. The sac should be left open and a large drainage tube introduced. If the gut at a later period gives way, it will do so gradually, and as adhesions are rapidly formed, the intestinal contents will escape along the course of the open sac."

Second—If the bowel be found gangrenous beyond doubt and if the patient is in good condition and has the strength to withstand a prolonged operation, the bowel is to be resected and united by Murphy's button, Dennis' decalcified bone

plates or whatever method is deemed most suitable to the case in hand. This, however, requires considerable time even if the operator be skillful and rapid, and when a few minutes is a valuable item in the patient's chances for recovery, the third alternative may be chosen, in which the gut is stitched to the edges of the wound and an artificial anus forms. Sometimes it is so firmly adherent to the neck of the sac that suturing is unnecessary. At a later period when the patient has sufficiently recovered from the effects of the strangulation, another operation may be performed, breaking up the adhesions around the ends of the gut and uniting them.

In some cases even when the gut is viable, the patient may be in such an extreme condition that none of the usual operations for the radical cure are practicable. In such instances it will often be sufficient to ligate the sac at its neck and close the wound. These cases sometimes do as well, so far as relief from future trouble is concerned, as those that have been subjected to the more tedious and elaborate procedures.

But when practicable it is well to attempt a radical cure. The judgment of the operator must be employed in the method to be selected. That none has been devised that is perfectly satisfactory is evidenced by the great number that have been and are now being advocated by their originators. Probably the two most frequently employed to-day are Halstead's and Bassini's. They have so often been recited that only their important points of difference will be noticed. Halstead ligates and cuts away all but one or two veins of the cord, thereby lessening its size, places it external to the aponeurosis of the external oblique. and restores the obliquity of the canal. Bassini does not ligate the veins, places the cord under the aponeurosis of the external oblique, and fails to restore the obliquity of the canal.

Probably the best of the more recent operations brought forward is that of Fowler. He makes an incision from a point immediately over the internal ring to the spine of the pubis, following a line over Poupart's ligament. The canal is opened and the sac and cord cleared separately to the level of the internal ring. The sac is opened, its contents disposed of, and is cut away, but the edges of the abdominal portion held by a temporary suture to the surrounding tissues until the wound is ready to be closed. The deep epigastric vessels are ligated and divided between ligatures. The posterior wall of the inguinal canal is laid open by an incision which divides the transversalis fascia and peritoneum from the in-

ternal ring to a point below the level of the pubis. The cord is passed into the peritoneal cavity at the upper angle of the incision and emerges at its lower angle. The margins of the incision are brought together from above downward, leaving a sufficient opening to prevent constriction of the cord at its emergence. The wound is closed and dressed in the usual manner. The opening or new ring is sufficiently low for the pubic bone to form a barrier to the exit of the abdominal contents.

Often, however, none of the methods set forth by these different advocates will apply to the case at hand, as happened in the instance just reported, and the judgment of the operator will have to direct him in his method of procedure.

MODERN CONCEPTIONS OF THE ETIOLOGY OF INSANITY.

PROF. THOS. L. MADDINi M.D.

I have the honor of receiving a copy of an address delivered by Sir John Batty Tuke, M.D., (Edin., D. Sc. Dub). President of the Royal College of Physicians of Edinburgh, at a recent meeting of the British Medical Association, "Modern Conceptions of the Etiology of Insanity," of which I submit an epitomy:

"Twice during the current decade the British Medical Association has demanded an address on Psychological Medicine. In 1890 Sir James Crichlou Brown performed this duty, and now a similar duty has been placed upon me. This mere fact must be gratifying to the specialty we have the honor to represent as indicative of a growing consideration accorded to a department of medicine which till lately has, in the opinions of many, held a somewhat doubtful position in the realm of medical sciences. During the corresponding period of the last century vast changes were brought about in the principles governing the management of the insane in France and Great Britain, and that, therefore, it has been deemed desirable to commemorate the century of a beneficent revolution. I believe the actual reason for the request for these lectures, to be that the profession at large is alive to the fact that the so-called psychological medicine is becoming day by day more incorpulated in general medicine, and less and less a peculiar and isolated department; that

with the advance of knowledge of the nervous system, the glamour which hung over the general conception of insanity is becoming dissipated, and that the various phases of mental alienation are coming to be recognized as symptoms of numerous and very varied morbid physical conditions. In point of fact we are drifting away from the psychological conception of insanity, from the contents of the term "mental disease," even as our ancestors drifted away from the idea of demoniacal possession. *Nulla mens insana sed corpore insano*" expresses the principle which is, to say the least, beginning to regulate our conception and our practice in respect of all the conditions comprised under the general term "insanity." The popular conception of insanity, until the closing decade of the present century was, to all intents and purposes, psychological; thin, a rude mixture of a pseudo-psychology and pseudo-pathology. This indefinite mysticism was conspicuous alike in theology, law and medicine. These errors in philosophy lead to corresponding errors in practice. The symptom (insanity) was the essence of the case, and the underlying causating condition was ignored. Undoubtedly, to the public and the lawyer the mental symptoms must always be the essence of the case, but to the physician it is not. He must go further back and seek for the *fons et origo mali.* This to him is the essence of the case. Instances which illustrate this difference of opinion between medicine and law and the public is what is called "moral insanity"—pyromania, erotomania, kleptomania, homicidal and suicidal mania.

"From a clinico-psychological standpoint, the patient is unable to recognize the nature of his immoral acts or weigh their consequences.

"It is only during the last thirty-five years that the medical profession has gradually alienated itself from the errors of the mystic psychological belief, and relegated the insanities to the molecular pathology of the organs of which they are simply symptoms. Were it only that the world has had placed before it the proposition that the essence of mental life and the essence of bodily life are the same—namely, the adjustment of inner and outer relations—great gain has accrued to science and philosophy. The physiologist demand for every vital function a physical organism—sensation, emotion and intellection, as functions, are no exception to this demand. Remember we are dealing with the mental attitude of a profession which deals with material, and which till

lately, so far as cerebral material is concerned, had slight knowledge. But there has been presented to the physician an organic architecture of the nervous system, reaching into the complex blending of the various organs of the brain. Nerve paths have been demonstrated as reaching from the periphery to the cortex, and from the cortex to the periphery, consisting of ascending and descending neurons, and commissural neurons connecting sensory with motor centers. Each circuit thus made is regarded as a physiological and anatomical unit. The nerve cell and its deudrites may be regarded as the vital center of the neuron, and its axon (axis cylinder) is the receiver, conservator and trasmutator of energy. Although the neuron has been spoken of as an organ, it may be well to state, for the benefit of any layman, that the neurons can be counted by millions; but anyone can realize that an almost unappreciable number of (these) organs must exist for the reception and distribution of the constant and continuous flood of impulses which stream from without inwards to the brain. None but experts can be expected to be acquainted with the full details of its anatomy, but the great facts as to structures, and the facts, theories and warrantable assumptions as to its action have operated, and continue to operate, on the views of the specialty at large. Its members, knowing that they have a mechanism to deal with, solutions of continuity of which in any part of its course may affect its function, have a scientific foundation for the study of the morbific influences productive of interruption of connection.

"A strong indication of the awakening of the scientific is afforded by the earnestness with which the study of the morbid anatomy of the brain is being prosecuted by the psychirtrists all the world over. Shortly after methods of cutting and staining microscopic sections of the neurons structures were promulgated the rough turning over of the soil was begun. The journals of the day, instead of dealing largely with analysis of the mental condition of real or imaginary persons with abstract cousiderations and mere clinical detail, we have the studies of the insanities preluded by a systematic account of the cerebræ apparatus, instead of by an attempt to analyze mind, which was the time-honored introduction to works on mental aberation. But the all important question remains to be answered: what has the change in the principles of study had on general pathology, practice and treatment? The same facts and principles hold good in

human life that we find in vegetable life and animal life; every living thing lives through a physical organism constructed of molecules peculiar to the functions to be expressed. The most complex of organs is that of the nervous system. All so-called functional diseases, whether in the excito-motor arcs, sensori-motor arcs or idio-motor arcs, are developed from the errors of molecular anatomy that fails to give a physiological result—in the domain of the excito-motor function, from paralysis to eclampsia; in the sensori-motor, from paralysis of sensation to the extremest pain; and in the idio-motor, from idiocy to mania—whether it is emotional, mental or moral. The coarser factors, things that we can see in the tissue, we call organic, but not being able to see the molecules, we have learned to call functional disease.

In the nervous system exhibiting vital phenomena, either of normal or abnormal nature, we have to deal with matter and motion; the same two elements (factors) which underlie all of the phenomena of the physical universe. Right conception, therefore, of the nature and arrangement of the matter which constitutes nervous tissue and of the motions which act upon it and originate (correlate) in it, are indispensable to a correct interpretation of nerve action. Our knowledge is changing and enlarging daily concerning the structure and arrangement of the nervous tissue, which constitute the machinery that serves to receive, transform and transmit the motion (energy) peculiar to it, and this added knowledge requires us to modify the conceptions we have previously entertained of the workings of that mechanism. (Neural Dynamies-Herdman).

"The fountain of food, out of which all dynamic and vital energy is dispensed, is the sun, and is correlated into its many expressions by the organism through which it is expressed—mechanical energy, chemical energy, sensational, motion, emotional, mental and moral energy, according to the organ that gives its expression. Therefore, the many forms of insanity are but the crippled condition of the organs, molecular or tissue, which in health gives a physiological result—a sane mind—but in disease gives a pathological result—an insane mind. Thus the fictions of the metaphysics of the past has surrendered its erudite claims to the demand of physiological science. The many pathologies that are reckoned as mental alienation are the result of the organic disease of the neurons, or of the interstitial substance

(neuralgia) which holds the parenchyma of the encephelon in position. These considerations lead to the conclusion that the mind is the function of the brain, and the proper treatment in reference to its alienation should be conducted upon the same principles of treatment that are recognized in other organic diseases."

POINTS IN THE ARSENICAL CAUSTIC TREATMENT OF CUTANEOUS CANCERS.

1. The arsenious acid caustic treatment of skin cancers does not contemplate or depend upon the actual destruction of the new growth by the caustic.

2. The method is based upon the fact that newly formed tissue of all kinds has less resisting power than the normal structure when exposed to an irritation and its consequent inflammation. Hence the former breaks down under an insult which the latter successfully resists.

3. If therefore the whole affected area can be subjected to the influence of an irritant of just sufficient strength to cause a reactive inflammation intense enough to destroy the vitality of the new cells, the older normal cells will survive.

4. Arsenious acid of properly mitigated strength is such an agent, and its application causes an inflammation of the required intensity.

5. It therefore exercises a selective influence upon the tissues to which it is applied, and causes the death of the cancer cells in localities outside the apparent limits of the new growth, where there is as yet no evidence of disease.

6. It is superior, in suitable cases, to any method, knife or cautery, which requires the exercise of the surgeon's judgment as to the extent to which it is to be carried. That that judgment is often wrong, and necessarily so, is shown by the frequency of recurrence under these methods even in the best hands.

7. It is applicable to all cutaneous carcinomata in which the deeper structures are not involved, and which do not extend far onto the mucous membranes.

8. It is easy of application; it is safe; it is only moderately painful; and its results compare favorably with those obtained with other methods.—William S. Gottheil, M.D.

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EDITORIAL.

MEDICAL SOCIETIES AND MEDICAL EDUCATION.

This is the season of the year which medical societies the country over select as the most convenient time to hold their meetings. It is a time when most medical schools have sent forth their latest graduates to seek a field which they *may bless* with their knowledge and honor with their labors and new diplomas. It is a time when professors, relieved of their teaching duties, need rest and change, when they can best prepare papers and carry them to a school of critics. It is a time when the general practitioner, wearied by the labors of a winter's work, feels the necessity of a change, that he may come back with renewed energy to his days of toil and nights of disturbed dreams. It is the one season when all the members of our profession can, with small sacrifice, mingle and

consult over our cases, thereby enriching our stores of knowledge, advancing the science of medicine and doing much for the good of the human family as a whole.

In this, the end of the century, the great voice of the public in nearly every State of the Union is being lifted up for higher medical education. The medical schools recognizing the necessity of the times, are everywhere lengthening out their courses of study. A few years ago there were but few schools in the country having more than a three years' course. To-day the three years school is a rarity, and we predict that the time is not far distant when a diploma from such a school will be considered of little value. Medical education and medical practice in most of the States is regulated by legislative enactments. In our own proud State, where we boast of our educational advantages, we must hang our heads in shame and confess we have taken a step backwards in regard to our medical legislation. When our law givers again assemble it is to be hoped that they will remedy this disgrace and place upon our statute-books such a law as will protect the public against legalized incompetents, and encourage the advancement of medical education.

Medical societies throughout the State should begin now to work for this end and not wait until after the elections, when there is not sufficient time to educate public thought as to the necessity, for what may at first sight seem stringent measures.

Medical societies are post graduate schools, and they are the best ones. Besides giving new life and energy to the old and tried practitioner they must give valuable instruction to the young graduate. Every undergraduate wishes the Medical Examining Boards were out of existence, and until he has gotten his diploma and had it registered, he does not always recognize the great good these boards do for the public and the profession. He will readily grant that a man who cannot pass the examinations they set is not fit to practice and ought not to be permitted to do so; but he argues these examiners are not all men who are familiar with the subjects

upon which they are to pass, and some of them may not be above prejudices. Such arguments are puerile. If the law is deficient upon these points, then amend it until the enactment is without these objectionable features, but do not efface it.

Medical societies as post graduates schools, should educate these young men upon this line and make them ardent workers for a just law. One that will make a weak profession strong, and a strong profession powerful in guarding the public from disease.

Commencing with the next issue the BULLETIN severs its official connection with the Medical Department of the University of Nashville, and becomes the property of the Editor and Business Manager. It will, however, keep the interests of the old school closely in view, and will be kept up to the same high standard of excellence that has always distinguished it.

PERSONAL.

We are pained to learn of the death of Dr. Isaac M. Cross, at Bainbridge, Ga., recently. He was a graduate of the class of '97-98, an earnest and conscientious worker, and a noble Christian character.

The kindly presence of Dr. S. S. Amerson, of Sullivan, Ky., lighted our door a few days ago.

SECTION ON MEDICINE.

UNDER CHARGE OF W. L. NICHOL, M.D.,

PROFESSOR OF DISEASES OF THE CHEST, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; AND

E. G. WOOD, M.D., C.M.,

PROFESSOR OF PRACTICE OF MEDICINE AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF THE BRITISH MEDICAL ASSOCIATION, ETC., ETC.

THE TREACHEROUS LULLS OF APPENDICITIS.

Professor Dieulafoy (Presse Medicale, February 8th) thus concludes a paper on the Deceptive Lulls of Appendictis: 1. The marked and painful symptoms of appendicitis, the vomiting and the fever, are often followed by an abrupt lull with disappearance of the pain, fall of the fever, and a general sense of relief to the patient. 2. This abrupt lull, this defervescence, is not always the sign of a real amelioration; it is often false, deceptive, and treacherous. 3. It must further be remarked that this misleading and treacherous lull often coincides with the formation of most dangerous lesions, gangrene of the appendix, peritoneal septicæmia, and diffuse peritonitis. 4. The treacherous lull is never a complete lull. Regarded closely, it is seen to differ from a real amelioration by the persistence of some symptoms. In the case of an apparent calm the abdomen remains more or less tymanitic, the muscular resistance does not always disappear, the amelioration of the pulse persists, even though temperature may have fallen, and urobilinura and albuminuria are not rare. 5. This false retreat in appendictis is sometimes favored by medication, injections of morphine, the application of ice-bags, etc., which mask the evolution of dangerous symptoms. 6. It appears at variable intervals, as shown by the author's observations. 7. The lulls coinciding with the development of the gravest peritoneal lesions show, moreover, the inexactness of the descriptions which distinguish by well-marked lines appendicitis from peritonitis. Such descriptions perpetuate fatal errors; frequently the symptoms of appendicitis and of peritonitis are similar, concurrent, and mixed, so that it is impossible to decide at what moment periotonitis sets in.

8. These treacherous lulls in appendicits are the most frequent cause of death. A physician or surgeon of too hesitating a character eagerly seizes upon this apparent lull in the disease to adjourn or avoid surgical intervention, believing that there will always be time to operate at leisure later; but meanwhile terrible accidents intervene, against which surgical measures are powerless, and the patient succumbs. 9. We must, then, distrust these treacherous lulls of appendicitis snd learn to recognize them, and operate without delay if we would not expose our patients to the risk of death.—N. Y. Med. Journal, March 18, 1899.

ATROPHIC GASTRIC CATARRH.

Reichmann (Berl. Klin. Woch., Nov. 14, 1898), refers to cases in which there is discomfort in the abdomen, nausea, and regurgitation of a watery fluid. These symptoms come on in attacks rarely immediately after food, often in the night and they recur every day, or more frequently every other day, or very seldom at long intervals. The nausea is never very pronounced, and it outlasts the other symptoms. The discomfort is felt in the upper part of the abdomen and most often in the neighborhood of the umbilicus. The regurgitation takes place once, or more frequently, some 50 or 60 c. c. m. being brought up. The fluid looks like turbid water, but is quite translucent on filtration. It is generally frothy. It has a raw, salty taste, but no smell. The fluid is alkaline and contains no ptyalin or pepsin, so that it will not digest starchy or nitrogenous matters. The chemical examination would make it appear to consist of a watery secretion of the mucous membranes. These patients are obviously suffering from a complete suppression of the gastric juice, so that gastric digestion is in abeyance. This absence of gastric secretion occurs in carcinoma of the stomach, atrophy of the mucous membrane and secretory gastric neuroses. In the ten cases referred to by the author the permanent absence of the gastric juice and the long duration of the affection (one to nine years) excluded secretory neuroses or malignant disease. Thus the author looks upon this group of symptoms as undoubtedly in favor of gastritis atrophicus, but the absence of them does not exclude this affection.—British Med. Journal, Feb. 11, 8899.

NEPHRO-TYPHOID.

J. C. Wilson records the case (Amer. Journal Med. Science, December, 1898) of a lad aged 19, of previonsly good health, and without history of typhoid, but who developed headache and pyrexia, the temperature fluctuating between 102° and 104°. The urine varied in specific gravity from 1010 to 1030, and contained a large quantity of albumen with epithelial and granular costs. There were delirium, vomiting and slight puffiness under the eyes. There was also some passage of blood per rectum. There were no rose spots nor enlargement of the spleen, but Widal's reaction was markedly present. In about six weeks the urine was free from albumen, though still containing a few cells, and the temperature had come down to 99.3°. There was then a return of pyrexia with delirium, reappearance of albumimuria with epithelial and granular casts and blood corpuscles, and a rather copious eruption of typical enteric spots appeared.

There was enlargement of the spleen, and the patient suffered with diarrhoea. He subsequently made a good recovery. The writer looks on this case as distinctly one of enteric fever, though obscure in its diagnosis at first; in this particular instance the kidneys bore the chief brunt of the disease.

The case even showed a typical relapse, with reappearance of the kidney lesion. He points out the extreme importance of diagnosis in a case such as this, for if unrecognised, it may be the source of danger to others, and in the event of a diagnosis of nephritis only being made, it is conceivable that a patient might have articles of food, such as grapes, etc., given to him, which might prove extremely injurious. Under these circumstances it would be better to diagnose the case as typhoid, and overlook the nephritis, rather than the converse. The writer also quotes another case seen in consultation, in which acute nephritis was present, but the enlargement of the spleen, diarrhoea, and condition of the tongue were the symptoms that first attracted attention, and pointed to the diagnosis of typhoid. In this case, as in the early history of that already mentioned, there was no eruption. Widal's reaction seemed to be negative. Wilson is of opinion that notwithstanding this fact the case was one of typhoid with acute nephritis.

SECTION ON OBSTETRICS.

UNDER CHARGE OF S. S. CROCKETT, M.D.,

PROFESSOR OF OBSTETRICS, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

PERNICIOUS VOMITING OF PREGNANCY.

Dr. G. W. Harris (The Medical Age, August 25th) concludes a paper on this subject by stating that there are certain methods of procedure which the experience of this and similar cases he has met with lead him to accept as safeguards in future emergencies. (1) In cases of uncontrollable vomiting of pregnancy, when the woman's health begins to fail and emaciation becomes marked, he counsels insistence on terminating the pregnancy, and, failing to get the consent of the patient and her friends, withdrawal from the case at once. (2) When active interference is decided upon in cases that come under treatment in the so-called third stage, he deprecates wasting time by the slower methods, and urges rapid dilitation and the emptying of the uterus at once. (3) After emptying the uterus by this or any other method, the patient should always be left in charge of a competent nurse or a physician, at least during the twenty-four hours immediately following.—Medical Record.

ON THE COMPLICATIONS OF PREGNANCY, PARTURITION, AND THE PUERPERIM IN CHRONIC HEART DISEASE.

Most of the cases of chronic heart disease in which compensation is complete pass through the periods of gestation, labor and puerperium without any manifest untoward symptoms, or with only slight symptoms, unless some complication, such as nephritis, bronchitis, or recent endocarditis, develops. On the other hand, in non-compensated heart lesions, the chances of passing through these three stages without incident are slight. The character of the lesion plays an important role, and, according to Dr. O. Feis (Volkmann's "Klinische Vortrage," 213), mitral stenosis is the most fatal. The frequent abortions and miscarriages in cases of heart disease should be looked upon as fortunate

terminations. The greatest danger threatens during the period of labor, in consequence of the marked fluctuation in blood pressure, the psychical excitement, etc. The rupture of the membranes with escape of the water, may be sufficient to call forth fatal collapse. Many of the deaths occur during the puerperium, and are usually the result of pulmonary emboli. As regards treatment, urgent symptons are to be treated upon general principles; upon the appearance of threatening manifestations, abortion is indicated; it is not safe to postpone interference until the time of viability, since artificial miscarriage is attended with much greater danger than is abortion in these cases. Delivery should be performed as rapidly and carefully as possible (dilatation of the os uteri by colpeurysis). Chloroform may be cautiously administered. The mother is to be carefully watched after the birth of the child, for collapse frequently occurs just at this time. In beginning œdema of the lungs venesection is indicated. Milk diet and small doses of strophanthus may be given in the after-treatment, the patient to be kept in bed three or four weeks.—Medical Record.

SECTION ON ABDOMINAL SURGERY AND DISEASES OF WOMEN.

UNDER CHARGE OF M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

A CONNENIENT WAY TO GIVE A VAGINAL DOUCHE.

Dr. V. R. Penneck (Colorado Medical Journal, February), says that in ordering a vaginal douche it is very easy for us to inform our patient that she should use two or more gallons of a certain solution, instruct her as to the kind of a nozzle to use, the height of the reservoir, and to lie always upon her back. This last direction she is very apt not to follow unless taught a method more convenient than using old rags to collect the return flow.

He has used the following method for a few years and finds it convenient for douches, even after curetting at the patient's home:

An ordinary straight-backed chair is tipped forward with its top over the middle of a washtub. The chair in this po-

sition is covered with pillows and the patient places herself upon it, with feet on the edge of the tub and hips over its middle, supported by the back of the chair. There is no soiling of garments or bedding and the apparatus can be found in every home.—New York Medical Journal.

REMEDIAL TREATMENT OF CYSTITIS IN THE FEMALE—J. H. ETHERIDGE, M.D.

Treatment is *Constitutional and Local.*

1. Treatment—(a) keep skin and bowels acting by means of baths and purgatives. (b). Relieve the pain and tenesmus by use of chloral, bromides, hyoscyamus and if necessary opium in some form. (c) Change the character of the urine, and if too acid alkalinize by carbonate of soda of bitumey or citrate of potassium. The latter in twenty grain doses three times daily, given with plenty of water is efficient. If the urine be alkaline it may be made acid by the use of large doses of the mineral acids, but better still by the use of benzoic acid or benzoate of ammonia. As germicides when the urine contains micro-organisms, creosote, oil of sandal wood, cubebs, salicylic acid and the balsams have been found useful.

2. Local treatment—Thorough autisepsis should be practiced. Wash out the bladder with saturated boric acid or normal salt solution. In many cases such a washing if daily performed proves sufficient. When no improvement occurs in ten or fourteen days, a solution of nitrate of silver one to two grains to the ounce of water will usually give good results. Cases that resist all local and general treatment should be sent to the surgeon.

(At the present time, when the inside of the bladder can be so thoroughly inspected, diagnosis so certainly made and topical applications so accurately applied, flushings with solutions that bathe the whole inside of a riscus probably affected by only a small spot of disease, are to say the least of it, not wholly necessary.—ED.)

DIAGNOSIS OF CYSTITIS.

Cystitis diagnosed by chemical and microscopical examination of the urine. Dr. J. A. Wesner, Am. Gy. and Obst. Journal. The specimen of urine to be examined must be as it comes from the bladder. In women contamination from vaginal secretions must be guarded against. This is best done by using a catheter.

The urine in cystitis may be acid or alkaline, depending upon the cause of the infection or the bacteria present.

Two tests are employed for the detection of pus and leucocytes in the urine. The chemical one, recommended by Vitali, is appled as follows: The suspected urine, if alkaline, is treated with enough acetic acid to make slightly acid; filter and add to the residue a few drops of freshly prepared tincture of guaiacum. If pus be present, the inner surface of the filter takes on a blue tint. This test is very satisfactory, even when there was only a trace of pus present. With the microscope pus-cells are readily detected; sometimes, however, it is necessary to strain these cells with an iodine-potassium iodide solution, in order to differentiate them from degenerated epithelial cells. If the urine is alkaline, the pus-cells swell up, become glossy and homogeneous and their nuclei disappear; but this can all be corrected by the addition of acetic acid.

To differentiate cystitis from pyelitis, proceed as follows: In cystitis there is always more pus than in pyelitis, and for this reason we find kidney epithelium more readily in pyelitis because of the smaller amount of pus present. After centrifuging the urine, it should be tested for the amount of albumin it contains. In cystitis we find it absent or present, depending on the amount of pus; whereas, in pyelitis, we always find a considerable quantity of albumin. The explanation for this difference is due to the fact that the kidney is a much more vascular organ than the bladder, therefore exudation takes place more easily. Red blood-cells are found more frequently in pyelitis than in cystitis. Furthermore, in pyelitis, casts are often found. Clinically; we might succeed in distinguishing these two conditions by washing out the bladder with sterilized water immediately after urination; examine the urine collected, and also the washings, for pus. If the water contains a considerable amount of pus, it is probably cystitis.

CALCIUM CARBIDE IN CANCER.

Professor James H. Etheridge, of Rush Medical College, in a recent lecture, stated that he had been using carbide of calcium duriug some eighteen months for uterine cancer. While he has not yet concluded that it will cure, it certainly does a wonderful amount of good, as shown by the following sample cases:

The first was that of an old lady who had passed the

change of life about twenty years before. The cervix was found entirely gone, ulceration had taken place clear up to the uterus, and there was nothing but a cavity. This was curetted and a piece of carbide put in it. The result was instantaneously a bubbling and boiling. Iodoform was then packed in very tight and left for three days, when the hard mass was found reduced to a clay. The elimination of gas was very painful for a few hours. At the end of five or six treatments at three days' interval the cancerous ulcer, to all appearance, was converted into a simple ulcer. The powdered carbide was used on the ulcer until it all disappeared. On examination three months after there was no discharge or odour. When last seen again, "a few days ago," there was nothing to attract attention.

A woman who had passed fifty, beyond the change of life, well nourished and active, came with the cervix nearly all gone, and was generally annoyed with odour, discharge and hemorrhage. She was subjected to the same treatment, and went on in the same way until the cancer was entirely obliterated. To-day she is going around doing her work the same as two years ago. And in addition, the speaker had half-a-dozen cases on his hands now, where the use of carbide of calcium has been very beneficial. It stops the discharges. The patients all improve in appetite, blood supply, and in general symptoms. The time is too brief to say that they are cured, but they live, and live in comfort. How it is done he does not know.

What seems to be a very constant result of using the carbide of calcium in treating the cases of uterine carcinoma, is the abolition of the trinity of symptoms so characteristic of this dreadful malady, viz., odour, hæmorrhage and discharge.—Health, April 8.

SECTION ON SURGERY.

UNDER CHARGE OF CHARLES BROWER, M.D.,

PROFESSOR OF SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

THE TREATMENT OF RETENTION OF URINE IN CASES OF ENLARGED PROSTATE.

Where retention of urine depends upon the presence of an enlarged prostate it will occur in one of two forms, viz: (1) acute complete retention; (2) chronic incomplete retention.

In the first variety the retention occurs suddenly, and is complete, no urine being voided. The patient is seized with the attack in the midst of apparently perfect health, after exposure to cold or damp; or perhaps after excessive drinking of gin or whisky.

In the second form, that of chronic incomplete retention, the retention does not occur suddenly, nor is it complete, the patient being able to pass some little urine, but in small quantities at frequent intervals.

In the treatment of retention of urine in cases of enlarged prostate, three things are absolutely essential: (1) The proper instrument for the purpose; (2) an absolutely clean and, as far as possible, sterile catheter; (3) a knowledge on the part of the physician of how such an instrument can best be used to accomplish the desired objeet.

It must, however, be borne in mind that the prostatic overgrowth, projecting, as it does, into the bladder, has the direct effect of elongating the uretha, the result being that the uretha will be found to measure from ten to fourteen inches in length, instead of eight or nine, the normal length. It, therefore, follows that the ordinary metallic catheter, measuring about nine inches, will utterly fail to enter the bladder in these cases.

There are, however, two forms of elastic woven catheters that are indispensable in the successful treatment of these cases. They are the Mercier, or single elbowed, and the biconde, or double elbowed catheter.

* Read before the Philadelphia County Medical Society, December 28, 1898, by H. M. Christian, M.D.

The soft rubber catheter so often fails to enter the bladder, for the reason that it invariably doubles up upon itself whenever the tip of the instrument comes upon the slightest obstruction or the least deviation in the axis of the uretha. The physician should, therefore, have at hand a coude or Mercier and the bi-coude catheter, and also a long metal prostatic catheter. These instruments should be of 18 or 20 caliber (French scale).

The catheters should be as nearly as possible sterile.

We are here confronted with a most difficult problem. As the material of which the catheters are made precludes their being boiled, it is almost if not quite impossible to have them absolutely sterile. But they can at least be thoroughly washed in a solution of green soap and hot water, and wrapped in bichlorid gauze until wanted.

There is no special expert skill required in the use of the coude or bi-coude catheter. All that is necessary is that the catheter should be guided along the urethra into the bladder with a firm but gentle touch, no force whatever being required.

The English catheter, armed with a stylet, is capable of inflicting considerabfe damage in the deep urethra. Before introducing the catheter the urethra should be very thoroughly washed out with a solution of silver nitrate, 1 grain to the pint. It has been demonstrated that this solution has the power of destroying the microorganisms in the urethra, and at the same time does not disturb the integrity of the mucous membrane. There is one more point of vital importance in the conduct of these cases, the neglect of which has cost many a man his life. *When called to relieve retention due to enlarged prostate never entirely empty the bladder.*— The Philadelphia Polyclinic.

SECTION ON NEUROLOGY.

UNDER CHARGE OF T. L. MADDIN, M.D.,

PROFESSOR OF NERVOUS DISEASES AND GENERAL PATHOLOGY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF AMERICAN MEDICAL ASSOCIATION, ETC., ETC.

CONSCIOUSNESS DURING ANESTHESIA.

Persons under the influence of anæsthetics, as during a surgical operation, are often imperfectly conscious of what is

going on. Dr. S. O. Goldman, of New York, contributes to the Medical News, (April 15) an account of a case in which this consciousness seems to have been almost perfect, although no pain was felt. Says Dr. Goldman:

"The duration of the narcosis was forty minutes, during which time the patient evinced no symptoms of sensation whatever. Her consciousness, however, was complete. She remembered everything that transpired during the operation, as, for instance, the surgeon talking to the nurse; an instrument falling on the floor, a call up the speaking tube, and her husband answering, some one knocking at the door, etc. She subsequently said she endeavored, by moving her finger, to let me know she knew all that was occurring, yet felt nothing. There were, however, no muscular movements of any kind. Respiration was deep, regular and slightly stertorous.

"It might be questioned whether the patient was completely anesthetized, but of this there was no doubt. This patient evinced absolutely no symptoms of sensation during the cervical dilatation, or at any time during the narcosis.

"The higher the state of intellectual development the longer auditory sensations and consciousness persist. This fact can often be made use of, practically be use of, when anesthetizing a patient. It is not generally known that the effort of a patient to push the inhaler from the face, and to struggle, is partly voluntary. They are capable of understanding, if spoken to loudly and told to put down their hands, and, assured they are safe, they will do as told.

"During anesthesia, auditory sensations and consciousness keep pace with each other, and often persist during the second degree of narcotism. Few patients, however, are subsequently able to remember having been spoken to, and having acted in an intelligent manner. All the more extraordinary must it be when a patient retains consciousness during the third (surgical) degree of anesthesia, a consciousness of not imperfect remembrance of events during the commencement of the anesthesia, but details of what transpired after the anesthesia was complete."

The Medical News comments editorially on the case as follows: "Such phenomena are of great importance in solving that mysterious problem in neurological psychology—the existence of a dual personality—especially when accompanied by a distinct consciousness of each personality, or at

least a sublimical consciousness not subject to ordinary physic laws.

"These cases of persistent consciousness in the higher or mental sphere during complete anesthesia to pain are not so rare as might be thought from the infrequency with which they are reported. Most anesthetists of wide experience have had such cases. The phenomena are neglected because considered of no scientific value. The psychologic departments of several of our great universities, notably, Columbia Univeasity, here in New York, are interesting themselves in these sub-conscious phenomena of anesthesia, and medical men should not neglect the opportunity their frequent contact with anesthetized patients affords them to secure material for the interesting cognate science of physiologic psychology."

THYROID EXTRACT IN CEREBRAL CASES.

Loving, Columbus, O., has used thyroid extract in a man eighteen years of age, a student of healthy parentage, but who, in 1896, without assignable cause, began to suffer from constant headache, with severe exercabations. Within six months he found his vision affected, soon to such an extent as to oblige him to suspend his studies, and later to interfere materially with movement from place to place. With the exception of an attack of typhoid fever in his fifteenth year, his history is uneventful and his habits correct. Examination by competent oculists disclosed no lesion in either eye, though the vision was about equally affected in both. At a consultation between the oculists, a neurologist and a surgeon, it was decided that the patient was suffering from an intercranial neoplasm, nature and precise location not defined, suspicion of syphilitic origin. He was treated with mercurials and iodide of potassium, with no beneficial result, and after a rest of some weeks treatment was resumed with negative results; tonics used without results. Thyroid extract was prescribed and continued, with a few short intermissions, for several months, when improvement soon became manifest, and the patient has now so far recovered as to be able to read and write with ease and comfort. (Reported at recent session of the Association of American Associations of Physicians, May 2-4).

NERVE CELLS IN TYPHOID.

Nichols' paper gives the results of the study of certain

changes observed by Nissl's method in three cases of typhoid fever and in a series of experimental inoculations of the rabbits with the typhoid bacillus. In the human cases, which were of the severe type, the spinal cord and root ganglia were examined, and the same with the addition of the peripheral nerves in the experimental cases. His conclusions were:

1. The application of the Nissl method to the study of the motor cells of the spinal cord and the nerve cells of the dorsal root ganglia in typhoid fever, shows that these cells regularly suffer pathologic changes in the course of the infection.

2. The alterations in the motor cells are more constant and of a severer grade than are those in the cells of the sensory ganglia. The more characteristic changes consist of disintegration, solution and destruction of the chromatic substance of the cells, starting from the axone hillock and proceeding towards the nucleus; coincidently the nuclei of the affected cells seek the (their) periphery. Alterations are also suffused by the nucleus and nucleolus.

3. While this central form of chromatolysis is the prevailing type of the pathological change, disintegration, etc., of the Nissl bodies situated in the periphery of the cells and in the deudrites, is also observed (peripheral chromatolysis).

4. In experimental infection with typhoid bacillus in rabbits, a similar change of lesions in the corresponding nerve cells in the spinal cord and ganglia is encountered.

5. The main or central type of lesions discovered is identical with that found in man and animals after section, destruction, or even slight injury of the peripheral nerves.

6. The examination of the peripheral nerves arising from the lumbar segment of the spinal cord (the site in man and rabbits of the most profound changes) in rabbits inoculated with typhoid bacilli, showed well-marked evidences of parenchymatous degeneration.

7. It is probable that lesions of the peripheral nerves in typhoid fever in human beings are common, and that the post-typhoid hyperesthesias and paralysis are due to this cause.

8. Restitution of the chromatic granules may take place in the affected nerve cells, the new foundation beginning about the nucleus and extending through the protoplasm.

SIMULATED PERITONITIS IN AN HYSTERICAL WOMAN.

Dr. George Wythe Cook, in the American Journal of Obstetrics, gives an interesting account of a case of hysteria simulating peritonitis. The patient was married, 25 years of age, and the mother of two children. In the spring she presented herself, complaining of nausea and acidity of the stomach and vomiting of blood. She was not pregnant. The diagnosis was peptic ulcer. She became pregnant in September and aborted in November, with considerable hemorrhage. The stomach symptoms now became so bad that reclat feeding was necessary for a time, when she began to improve, and again to take nourishment by the mouth, but she still remained weak. During the next four months the stomach trouble grew worse, and reclat feeding was again resorted to, and morphia became necessary to relieve pain. She became much emaciatd. Cocaine was then substituted for the morphia, and as she complained of being hungry, food by mouth was allowed. It was well retained, and on the fourth day she took, with comfort, four pints. The diet diet was increased, and at the end of two weeks it was full. On the nineteenth day after the feeding by mouth was resumed she began to complain of acidity and pain in the stomach, with distention of the bowels. The next day the pain and distention had increased, she was vomiting, the legs were flexed, pulse was 100 and temperature 99. Diagnosis was proporation of ulcer of stomach and peritonitis. Consultation with a surgeon was had. The consultant agreed that peritonitis was present, but thought it was local, and advised the administration of morphia, the application of an ice bag to the abdomen, but no operation. This advice was followed for twenty-four hours, when the patient seemed somewhat improved. An enema of z. iv. of Emulsion of Assapœtida was administered, which promptly cured the case.

Dr. Cook concludes the report in these words: "Here was a patient who apparently was suffering from a violent pesporation peritonitis, her symptoms and previous history justifying such belief, upon whom I was anxious to have done one of the gravest operations known to surgery. Yet she was for the time being cured by an enema of assapœteda."

COLLEGE CLINICS.

MEDICINE—PROFESSOR E. G. WOOD, M.D., C.M.

The first case we will discuss to-day is that of a white man, aged 26, who complains of sorethroat and headache. He tells us that during the past seven years he has suffered from several attacks like the present one, that they always come on in the winter or spring and last from two days to a week. He has never had rheumatism or diphtheria. The present attack came on yesterday morning (after exposure to a rainstorm the previous night), with a slight chill followed by fever, sore throat, headache and "soreness all over." The pain in the throat is felt on both sides, is sharp, increased by swallowing and shoots up toward the ears. His fever and general pains have abated, but his throat is still sore and it is for it that he seeks relief. Examination shows him to be a fairly well nourished man of good color and firm muscles. His temperature is 101 1-5 and pulse 88. The tongue is coated with a heavy white fur, both tonsils are enlarged, red and projecting inwards. The left shows several isolated creamy white spots which can be easily removed without leaving any abrasion of the subjacent mucous membrane. The right shows a small whiteish patch about the size of the little finger nail, which is strictly confined to the tonsil and is comparatively loose. The mucous membrane covering the tonsils, the fauces and pharynx is red and inflamed. No enlargement of the cervical glands is detected. The prominent features in the case are history of repeated attacks in a young man, exposure to wet, sudden onset, sore throat, severe headache and general pains, enlarged tonsils with isolated and coolescent masses of whitish substance on their surface, which exudate is easily removed without bleeding, a moderate elevation in temperature and a pulse which is of good volume and only slightly increased in frequency. The clinical history of acute follicular tonsillitis is here set forth so plainly that there can be no difficulty in arriving at our diagnosis, the only disease with which it might be confounded, being diphtheria, and while in the particular case under consideration it is easy to arrive at a correct conclusion, it is in many cases difficult to say when the patient is first seen which one of the two diseases we have. Attention to the following

points will enable one to make a definite diagnosis in nearly all cases.

Diphtheria does not present the history of repeated attacks such as is common in tonsillitis, and which is well illustrated in our patient. The onset in diphtheria is not often sudden and as well marked as in tonsillits. Indeed many of the most malignant cases of the former are characterized by a gradual, almost insidious onset. In diphtheria the temperature on the first day is usually only slightly elevated and the general constitutional symptoms, as chill, severe head and backache are not so marked as in tonsillitis, but in the former the prostration becomes more marked and the case grows worse in a few days, while in the latter improvement is seen early. The profound circulatory and nervous depression present in diptheria are absent in tonsillitis.

In diphtheria the membrane consists of a continuous firm, tough, grayish white patch which generally extends beyond the tonsils, involving the mucous membrane of the fauces, the soft palate and uvula. It is adherent, removed with difficulty, leaving a raw, bleeding surface and rapidly reforms. In tonsillitis it is usually in isolated spots and is strictly limited to the tonsil, is easily removed, leaving healthy mucous membrane beneath.

Dipththeria frequently shows signs of paralysis as in the palate, evidenced by regurgitation of the fluids during swallowing. This is not the case in tonsillitis. The presence of the Klebs-Loeffler bacillus would of course settle the diagnoses. The treatment of such a case as the one under consideration is simple. A calomuel purge followed by a saline at the outset is beneficial. In children small doses of Tr. aconite may be given for the first twenty-four hours. The ammoniated tincture of gnaiacum given in drachm doses in milk, gargled and swallowed every two hours will answer well in most cases and we will order it for our patient.

PELVIC SURGERY—PROF. M. C. McGANNON,

CLINIC IN THE AMPITHEATRE AT THE UNIVERSITY OF NASHVILLE.

REPORTED BY DR. A. HUDSON, ASSISTANT TO THE CHAIR OF ABDOMINAL SURGERY AND DISEASES OF WOMEN.

BROAD LIGAMENT—SUPPURATING CYST—HYSTERECTOMY.

Gentlemen: This negro woman, upon whom I am about

to operate, has been referred to me by a loyal alumnus of the school, Dr. Amerson, of Sullivan, Ky.

The patient is 36 years of age, and has had several children, the youngest of which is eight years of age. She began to suffer three years ago with pain in her side, and noticed the abdomen was enlarging. During these three years she has been under the care of many different physicians, all of whom diagnosed uterine fibroid. She has been treated with electricity and drugs, but without benefit. In the course of her devious wanderings from physician to physician she came under the care of the gentleman who has so kindly sent her to us for operation. He very correctly believed that, even if the tumor was a subserous fibroid, it would not be affected beneficially by ergot or electricity, and that harm might come from the ergot, through its effect upon the circulation, and from the electricity by the electrode setting up infection. Ergot, when employed, will be of benefit only in the intra-mural fibroids, by causing contraction of the uterine muscles, and in that way either decreasing the blood supply to the growth, or by forcing it out of the wall. It has little, if any, effect on the other varieties of fibroids. Electricity, when properly applied, will control severe uterine hæmorrhages, a very common symptom of these growths, but it is doubtful if it has much effect upon the tumor.

When this patient first came under my observation she had a temperature of 99° and a pulse of 80. She complained of soreness over the lower abdomen, which was much enlarged. She stated she had been much worse, but was now improving. The lump had increased slowly. Examination demonstrated a tumor filling the right side of the pelvis. I will ask you to look at the abdomen. You see the right lower quadrant is bulging. Now, upon examining it through the vagina—bimanually—I ascertain that the vaginal vault is bulged downward, that the cervix is over to the left, and that the uterus feels like a small nodule stuck on the side of the large mass filling the pelvis. This mass, though firm, has an indistinct sense of fluctuation.

Now what have we to deal with, is the important question. That it is not a fibroid is fairly well proven by the uterus being not enlarged by no history of hæmorrhages by the semi-elastic, slightly fluctuating character of the growth. Then what is it? A broad ligament cyst, undergoing suppuration, would account for all of the facts before us. It would spread out the layers of the broad ligament, crowd the uterus

to the opposite side, seem to be connected with it, bulge the vagina, produce pain, cause elevation of temperature and give a sense of fluctuation. It is true the cysts have not dense walls, as a rule, but the inflammatory changes incident to its becoming infected would account for the thickened sac.

The diagnosis, then, will be cyst of the broad ligament, probably with suppurative changes, and we will proceed with its removal.

The patient has been thoroughly prepared for the operation in a manner described to you on a previous occasion.

I shall begin the operation by making a long incision from just below the umbilicus to the pubic bone. Care must be exercised in cutting through the peritoneum not to wound either the intestines or large veins that we may find running over the growth. Having exposed the tumor, which you see filling up the whole lower abdomen and being covered by omentine and intestines firmly adherent to it, I shall introduce my hand for the purpose of getting accurate information of the actual condition present. As I stated before, the uterus is low down and crowded to the left, a small nodule upon the large well-rounded tumor. The broad ligament is spread out by the growth underneath. The right round ligament is seen coursing over its top, and the right fallopian tube is enlarged, thickened and adherent to its posterior surface. The adhesions of the omentum we will now remove by tying them and cutting between the ligatures and the intestines. The intestines I am able to free without endangering their walls. The size of the tumor interferes with the work of its removal, hence evacuating its contents will no doubt simplify matters, but as we suspect the existence of pus, the peritoneal cavity and the wound must be protected by towels. A knife in this case will serve as well as a trocar to empty the fluid, which, you see, is thick pus. Quite a pint has escaped, and a clamp will close the opening. It is necessary to again make the surroundings aseptic, and to clean up our hands, all instruments contaminated will be put aside and the nurse will give us fresh ones.

The tumor being partly emptied exposes the conditions better. The right tube is filled with pus, the tumor deep in the broad ligament, which is thickened and vascular. The removal of the growth and tube on this side alone will be accompanied with severe hæmorrhage, so we will begin on the opposite side, tie the ovarian artery, cut through the broad

ligament to the uterine and secure it. We will now cut through the cervix. In doing so I have divided the right uterine artery, which, you see, is easily seized by forceps and ligated. We are now under the tumor, which is easily shelled out. It now remains to ligate the right ovarian artery and cut away the mass.

In looking into the pelvis is seen a broad raw surface from which some oozing is taking place. The divided cervix is seen almost in its centre. I shall enlarge the cervical opening and pass a drainage tube down into the vagina. That being done, the raw surface is closed by beginning on the right at the upper part of the broad ligament, where the ovarian arteries have been ligated, and with catgut suture uniting the loose layer of peritoneum reflected from the anterior abdominal wall over the bladder to that reflected from behind over the rectum. This disposes of the raw surface and leaves the pelvic peritoneum the same as in the male. It now remains to close the abdominal wall. Bear in mind that the chief strength of the wall is in its fascia, hence it must be approximated. We will do this by introducing between each pair of catgut sutures that penetrate all of the tissues composing the wall, a suture that goes only deep enough to catch the fascia on each side. When these are tied they must bring the edges of the divided farcia together, and so place the other structures composing the wall that the through and through stitches will bring them in opposition. An antiseptic dressing over the wound, secured by an adhesive plaster, will complete the dressing, and leave the patient ready to return to bed.

This patient had two small stitial abscesses; otherwise her recovery was smooth. She went home on the 21st day.

THE MIDDLE TENNESSEE MEDICAL ASSOCIATION

This Society held one of its usual live meetings, the tenth, at Franklin, Tenn., on May 18 and 19. The attendance was gratifying, a considerable number of new members being received. The various papers were read and discussed in a scientific spirit and every moment of the session was full of interest. The presence of such familiar figures as those of Drs. Sheddan, of Columbia; Ridings, of Dickson; C. A. and C. C. Abernathy, of Pulaski; McGannon, Price and Stonestreet, of Nashville, and Howlett, of Bigbyville, recalled the

"vim" and "go" of former meetings. Much missed were Drs. Cowan, Murfree, Ramsey, Jones and Grishard.

The physicians of Franklin and particularly Drs. Cliffe, White, Gentry, House and Hanner, were constant in attendance and assisted the Association in every possible way.

The city of Gallatin was selected as the place for the November meeting.

In selecting the officers for the ensuing term Dr. M. C. McGannon, of Nashville, was complimented with the Presidency; Dr. W. K. Sheddan, of Columbia, with the Vice Presidency, and Dr. Paul Clements, of Nashville, was reelected Secretary and Treasurer.

A vote of thanks to the retiring President, Dr. S. T. Hardison, of Lewisburg, was adopted. Also one to the profession and citizens of Franklin.

The new members received were: Drs. D. B. Cliffe, Sr., D. B. Cliffe, Jr., J. P. Hanner, S. J. House, of Franklin; J. B. Core, Bethesda; Larkin Smith, Nashville; Ossian Crockett, Carpenters'; Ross Hopkins, J. L. Haywood, Timmons; E. A. Davidson, T. J. Hardison. A. G. Binkley.

The proceeding were opened with prayer by Rev. Mr. Foster. Addresses of welcome were delivered by Col. John B. McEwen on the part of the citizens, responded to by Dr. E. W. Ridings, and Dr. W. N. Gentry, on the part of the profession, responded to by Dr. W. K. Sheddan.

The program was opened with the paper of Dr. K. S. Howlett, "Epidemic Cerebro Spinal Meningitis," which was discussed by Drs. W. K. Sheddan, C. C. Abernathy, and Larkin Smith.

Dr. E. W. Ridings' report of five cases of Fractures of the Skull was next on the program and was discussed by Drs. W. N. Gentry, C. C. Abernathy, D. B. Cliffe, Sr., W. K. Sheddan, M. C. McGannon and K. S. Howlett.

The third number, a paper by Dr. C. C. Abernathy on the "Relation of Pseudo-Membranous Croup to Diphtheria," was discussed by Drs. Larkin Smith, W. N. Gentry, E. G. Wood, W. K. Sheddan, D. B. Cliffe, Jr., M. C. McGannon, S. T. Hardison.

Dr. S. J. House reported an unique case of sore throat, which was discussed by Drs. C. W. Womack, K. S. Howlett, W. K. Sheddan, S. T. Hardison, J. P. Hanner and M. C. McGannon.

Dr. W. K. Sheddan reported cases, one of gall stones and one of gunshot wound of the abdominal wall and stomach,

with operative proceedures, which were discussed by Drs. L. E. Ragsdale, W. N. Gentry, E. G. Wood and M. C. McGannon.

Dr. E. G. Wood, of Nashville, presented a paper upon Hodgkins' Disease, accompanied by a report of four very interesting cases. Drs. W. K. Sheddan and Geo. H. Price took part in this discussion.

Under the title of "A Serious Complication," Dr. Geo. H. Price reported a case of operation for squint by advancing the muscle, complicated by the contraction of a gonorrheal opthalmia some days later. The discussion was carried on by Drs. W. K. Sheddan, S. T. Hardison and B. W. Stone.

Dr. L. L. Sheddan's paper on "Placenta Previa in Country Practice" was interesting and was the theme of an extended discussion, in which Drs. W. N. Gentry, C. C. Abernathy, R. S. Perry, Reg. Stonestreet, W. K. Sheddan, D. B. Cliffe, Jr., S. S. Crockett, S. T. Hardison and M. C. McGannon where heard.

Dr. Reginald Stonestreet reported a case of Placenta Previa also, which was reviewed by Drs. Sheddan, Crockett and McGannon.

Dr. D. B. Cliffe, Jr., presented a case of Syme's amputation for inspection, and read a paper upon "Talipes' Varus," based upon his results in thirty-seven cases. It was discussed by Drs. L. E. Lagsdale and Paul Clements.

Dr. M. C. McGannon reported several surgical cases, one of which was an extensive parturition injuiry of the base of the bladder involving the ureters. The plastic work in this case was detailed to the society. There was no discussion, but the work was very highly commended by Dr. W. K. Sheddan.

Dr. C. A. Abernathy reported a case of Ectopec Gestation with coeliotomy at eight months and ligation of the placenta, the patient recovering. It was discussed by Drs. W. K. Sheddan and M. C. McGannon.

Dr. J. S. White's paper on "Supra Pubic Cystotomy," with a case report, which was discussed by Drs. W. N. Gentry and D. B. Cliffe, Jr.

This concluded the program.

During the meeting Dr. R. S. Perry, of Bigbyville, entertained the Association by reading a parody on the "White Man's Burden," written by a young lady of that place. We append it below and would be pleased to give her credit for it, but that her modesty, equaling her talent, forbids us.

THE DOCTOR'S BURDEN.

Take up the Doctor's burden,
Secure the best you can :
Send out equipped for action,
To serve his God and man;
To cure the worst diseases
That e'er mankind has known.
To sit by every patient
And listen to him groan.

Take up the Doctor's burden,
Be patient, gentle, kind;
Look after those who suffer
In body and in mind;
Neglect your health for others,
Respond to every call;
Expect no pay for service,
Your time belongs to all.

Take up the Doctor's burden,
Quell all turmoil and strife,
Relieve the poor and needy
And bring the dead to life.
And when you feel encouraged,
You think success near by;
Watch cruel Fate come quickly,
And all your hopes defy.

Take up the Doctor's burden;
Be humble and polite,
Nor hope to de your practice
Among the most elite,
Of persons no respector;
Treat all mankind the same,
Put forth a mighty effort
And sigh and wait for fame.

Take up the Doctor's burden
And hear his tale of woe;
He toils for othdr people
And kindness does bestow.
Their bills they will not settle,
Though long ago they're due;
I'd hate to be a Doctor,
Now tell me, wouldn't you?

Take up the Doctor's burden ;
The title view with pride
Assume a wise appearance,
Your fears and doubts to hide;
Walk straight and do not falter.
Each day your strength renew,
And men will be constrained
To worship God through you.

Take up the Doctor's burden,
Put foolish things aside;
Don't work for public favor,
Let duty be your guide.
Call forth your manly powers;
Do all the good you can,
For time flies swiftly by us,
And life is but a span.

B. G. P.

THE
MEDICAL AND SURGICAL BULLETIN,

NASHVILLE, TENN., JUNE, 1899.

EPIDEMIC CEREBRO-SPINAL MENINGITIS.*

BY K. S. HOWLETT, M.D.—BIGBYVILLE, TENN.
PRESIDENT MAURY COUNTY MEDICAL SOCIETY, MEMBER MEDICAL SOCIETY STATE OF TENNESSEE, MIDDLE TENNESSEE MEDICAL ASSOCIATION, ETC.

Epidemic Cerebro-Spinal Meningitis is without doubt a specific infectious disease, due to a definite etiological factor, a distinct specific micro-organism, resembling somewhat the gonococcus, still claimed by some to be a degenerate form of the pneumococcus, and yet differing from either and distinguished by certain characteristics of its own. It was discovered by Weichselbaum in 1887, and named by him the diplococcus intercellularis, and is called oftentimes for convenience the meningococcus.

When the spinal fluid has been obtained from the living patient the meningococcus has not only been found in a large proportion of cases, but it has also been noted that the severity of the symptoms is in direct proportion to the number found. Further where two or more specimens have been obtained at different times from the same patient, their number will be found to have increased or diminished, just as the severity of the symptoms have grown worse or better.

Although it has not been so satisfactorily demonstrated in the so-called sporadic cases, yet I am constrained to believe that a more careful bacteriological test, with spinal fluid taken from the living patients, will show that a large proportion if not all of these cases, similar in their essential features to the epidemic cases, have also the same specific cause.

The meningococcus has been shown to possess but a fee-

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ble vitality, is extremely difficult to cultivate, and this would account not only for the slight infectiousness of the disease, but also for the large number of sporadic cases, sporadic in the sense of being widely separated by the time or space, but not sporadic in the sense of the absence of the specific infection.

Omitting any discussion of the mode of infection which is as yet obscure or of the exciting causes, which are very uncertain, I will only briefly refer to its pathology.

Meningitis due to any cause is understood to be an inflammation of the pia mater and arachnoid membrane which might properly be considered as one membrane with a serous surface, and containing underneath large lymph spaces and carrying the blood vessels of the brain and cord. There is an intense hyperaemia, a profuse serous or sero-purulent exudation, containiug an abundance of leucocytes, in which are found the diplococci, an increase of the cerebro-spinal fluid, etc. This exudation is more marked over the base and anterior half of the bain, and along the posterior surface of the cord.

In the epidemic form there is said to be greater involvement of the meninges of the cord, more extension of the inflamation along the nerves and into the tissues of the brain and cord than in other varieties.

Until recently it was supposed that the meningococcus was found only in the cerebro-spinal fluids, but Gwyn has reported in the Philadelphia Medical Journal one case in which it was clearly demonstrated in the blood and joint effusion during life. We would naturally suppose that there was oftentimes general systemic infection from the frequent pneumonias, pleurisies and joint inflammations as well as from the parenchymatous degeneration in the liver, spleen and kidneys, and tests from blood and fluid taken from the living patient will most probably confirm this view. There is certainly at best a profound toxaemia, as the disease presents many symptoms which cannot be satisfactorily accounted for by the local lesions alone.

It is well to keep in mind these few facts, which I have attempted to bring out, as to the etiology and pathology of the disease, for they not only have a practical bearing upon the diagnosis and prognosis, but a consideration of them will have at least a negative effect upon the treatment, will prevent some useless therapeutics, the use of certain remedies, which may do harm, which at least add to the discomfort of

the patient and which from the very nature of the disease cannot possibly be of any benefit.

It is not exactly correct to say that cerebro-spinal meningitis is a disease with many faces. The difference in the symptoms presented is a difference in intensity more than in kind, and I hardly think the symptoms present any greater variations than the other specific diseases with local lesions in other organs.

I shall now attempt to present the symptoms by describing two cases from my own practice during the past winter. While of longer duration than the average, they yet presented all the typical symptoms in a slow, somewhat intermittent form. Both cases were in stout, vigorous boys, near the same age, 17 and 15 respectively, of the same general habits, with very similar surroundings, taken about the same time, and in much the same manner. In neither case was the onset without premonition, both complaining for two days of great depression, severe headache, soreness, stiffness and aching of the body and limbs, cold chills, etc.

While the onset is said to be usually sudden, yet in every case which I have seen, in older children and adults, where the patient was sufficiently conscious to give intelligent anawers, I have abtained a history of a premonitory stage of longer or shorter duration.

After this premonitory stage in both my cases, the characteristic symptoms came on like an explosion, suddenly, sharply, overwhelmingly.

In the first case, the boy arose in the morning and ate some breakfast, but complained of severe headache. His mother noticed that he answered some questions a little incoherently, and arraged to put him to bed. Before the bed could be fixed, he way crying out with the pain in his head, and in an active, restless delirium. I saw him about six hours afterwards, and he presented at that time a typical picture. His head was slightly drawn back, with rigid neck and spine, sharply flexed knees, a deep frown, and an anxious, distressed expression upon his face, delirious, talking wildly, almost incessantly, snatching at the covers, slapping at imaginary objects, etc.

Upon being spoken to sharply, he would seem to come to himself, recognize those around him, and answer questions rationally, but quickly lapsed into delirium when the questions ceased. Temperature was 103 3-5, pulse 110, and lacking that force and volume usually expected in acute inflam-

matory troubles in robust patients. Pupils were irregularly dilated, and with feeble, if any response to light. Tongue was thickened, red and dry. He did not acknowledge any lack of appetite or nausea, although he had vomited one time. Acute pain and spasms of cervical muscles were elicited upon pressure over the cervical spines, or upon attempting to lower the chin upon the breast. There was frequent cough, which retained somewhat of the spasmodic character of a previous pertussis, the breathing was accelerated, and physicial examination revealed considerable bronchial irritation, and some obscure pneumonic signs in the lower lobe of the right lung.

The next morning found the patient quiet, rational, temperature 101, pulse 90, apparently better, so much so as to arouse a suspicion of mistaken diagnosis, and a hope that the trouble in the lung might account for our symptoms. However, there remained an intense headache, and a stiff and painful neck, and the pupils showed no better reaction. In the afternoon all the improvement had vanished, and during the night nothing seemed to mitigate or alleviate his distress in the least.

The headache continued as long as the patient was able to express consciousness of it, though it became a little less acute after three or four days. The delirium was most active and untiring. defied all remedies, and did not abate until the tenth day, when rather abruptly, as if from sudden exhaustion, the patient went into a kind of apathetic stupor, from which he could be partially aroused at first, but which deepened into a profound coma, with every sensation impaired or destroyed, a breathing death, in which he lay for twenty-three days, when death closed the scene.

Both the delirium and the coma were of an intermittent character, although the rational and conscious moments were fleeting. At first there was jerking of groups of muscles, irregular and uncontrollable contraction, followed in a few days by constant twitching of the muscles of the entire body, not ceasing even when the patient was under a heavy narcotic. This was always brought on by the least movement and continued sometime after coma set in. Tonic contraction of the muscles of the right leg was noticed during the third week, the knee remaining immovably flexed almost at right angles until the muscles became relaxed by approaching death. Altogether the nervous phenomena were most distressing.

The pupils were irregularly dilated at first and soon ceased to react in the least to light, and photophobia was present during the first few days. There was also considerable conjuctivitis, this being more marked in the right eye. I could detect little if any defect in hearing at any time. The temperature was 103 3-5 the first day, afterwards never above 103, later below normal, very irregular and there was seldom any relation between temperature and pulse.

The pulse was rapid and showed lack of force at the beginning, soon grew more rapid and weak, running from 136 to 180.

The prostration came on rapidly and early, there being marked muscular weakness from the first.

The lips and tongue were very dry, cracked and bleeding. There seemed no aversion to food, the patient taking ample nourishment until the last few days. There was occasional vomiting, always of that sudden, explosive type characteristic of cerebral disturbances. The bowels in this case were seldom constipated and responded readily to enema or laxative. The quantity of urine seemed sufficient and there was retention only during the last two days. After the first three days the urine and feces were voided involuntarily and unconsciously.

The second patient for the first ten days presented precisely the same symptoms as the first in a slightly modified form, the only noticeable difference was in the degree of prostration. The pulse in this patient was 90 at first, and showed more force and volume than that of the other, and the muscular weakness was not so marked.

On the 12th day he dropped into a prolonged sleep, and when he awoke, his temperature was normal, he was perfectly rational and every unfavorable symptom had disappeared, save one. The pupils remained dilated and entirely unresponsive to light and there remained a decided photophobia. For three days this improvement continued. On the fourth day, however, the sixteenth of the disease, I found the patient apparently doing well in every respect, but alas, the theremometer registered a temperature of 103. Like Mercutio's wound, "'Twas not so deep as a well, nor so wide as a church door, but 'Twas enough." It served to confirm my fears that we were not yet out of danger of having a "grave" patient. From this time for five weeks the patient grew worse, slowly, insidiously, almost imperceptibly. In comparing one day with the preceding, it was almost impos-

sible to detect any change, and interspersed were periods of a few hours, sometimes a whole day, in which everything would seem favorable, holding out for a moment a tantalizing hope only to disappear as mysteriously as it came, and the seventh week of the disease found us with an apparently hopeless case. From a seemingly entire absence of any abnormal nervous symptoms, a delirium, irregular, but usually of a low type, alternating with stupor; more or less profound, had gradually developed. While apparently conscious for several days at the beginning of this stage, he seemed apathetic, indifferent. His brother died in the same room with him during this time, and although he had been told that his brother was very dangerously sick, he showed no evidence of being conscious of his death, and when informed of it, no evidence of any emotion. This apathy became more pronounced until it became almost impossible to arouse him to consciousness of anything. His urine and feces passed involuntarily, and without great care, he would strangle when given liquids, not from any disability to swallow, but because of the difficulty of arousing him to a consciousness of what was being done.

Beginning as occasional pains in different regions, every muscle in the body had become rigid, and there was marked hyperaesthesia of the entire surface. He would lie in the orthodox meningitis attitude, and upon any attempt to move him, even at a touch, he would emit a prolonged, pitiful cry, most distressing and heart-rending.

For several days after the rise of temperature was noticed, the fever showed some degree of regularity, the temperature giving almost a typical typhoid curve, becoming more irregular, it frequently would fall to normal, sometimes subnormal. The pulse seldom corresponding to temperature, was for a long time about 80, but finally became rapid and weak. Other symptoms much the same as the other patient.

About the beginning of the eighth week, on the fiftieth or fifty-first day, after all hope had fled, efforts to alleviate symptoms well-nigh abandoned, unexpectedly the patient became decidedly better. The subsidence, the almost complete disappearance of distressing symptoms, which took place within twenty-four hours, was almost incredible. From this time the patient slowly but steadily improved, the convalesence presenting only one or two minor points, which time will not permit me to notice.

One point, as to diagnosis. Lumbar puncture is now regarded as of the greatest importance in accurate diagnosis, and without doubt the general practitioner should adopt it. The procedure is said to be perfectly harmless, and besides being an aid to diagnosis, (the fluid being cloudy and showing an excess of albumen in meningitis) is thought to possess possibly some therapeutic value.

A very simple sign, said to be of value, is that of Kernig. It consists of the impossibility of complete flexion of the knee in the sitting posture, while this can be done perfectly when the patient is recumbent. This would seem to me to apply to meningitis in any form where the spine is involved.

As to prognosis, the statement is made that only cases in which the diplococcus intercellularis is found, ever recover, which statement is concurred in by all recent writers upon the subject. Hence the further importance of lumber puncture.

I think all who have treated meningitis will agree with the statement, that no treatment yet devised will either cure the disease or modify to any great extent its severity.

It is a fight between the disease and the patient's constitutionai resistance. The physician can only array himself upon the side of his patient and ward off blows, and give support at critical moments. He must make, not an offensive but a defensive fight, not carry the war into the enemies' country, but attempt to eliminate his forces from our own domain, and fortify the vital points until the enemy succumbs to his own fury. Hence the eliminative and supportive treatment gives the best promise.

For the former, calomel, in as frequent doses as can be borne should be given n. c. should be given, however, not to produce, either excessive purging or salivation, but simply as an eliminant and judiciously given it is the eliminant "par excellence." After the acute stage has passed, iodine in some form is universally given, to promote absorption. I feel by no means sure that it accomplishes its purpose.

Circulatory stimulants and tonics seem to assist materially in this. For the supportive treatment give good nourishment and plenty of it throughout the disease, and fortunately these patients take and assimulate nourishment better than in other infectious diseases approaching it in severity. Give digitalis, ergot, alcohol in the latter stages, but not strychnia and avoid all depressing remedies.

Of special symptoms, those of the nervous system cry

loudest for relief. Have the room darkened, absolutely quiet, give hot mustard foot baths, and apply cold (ice-bags or cold cloths) to head and neck. The cold will quiet the patient more effectually than any other remedy, and is harmless. The bromides in moderate doses and for a limited time, are probably admissable, but they accomplish little. Chloral and morphine should only be given under the strongest provocation, if indeed, they should ever be given at all. The ice-bags and other remedies should at least be given a thorough and faithful trial first.

The temperature, if persistently high, should be reduced by cold bathing.

Strict rules as to cleanliness and hygiene of the patient and sick room should be observed in this as in every other disease.

ECLAMPSIA.

BY DR. W. E. HARAWAY, FLORENCE, ALA.

Not wishing to bring before this organization subjects that are intricate and abstruse in their nature, but those which embrace plain matters of fact, I have selected a subject which should be familiar to the modern physician. Eclampsia, or Puerperal Convulsions. As to its aetiology or cause little was known in the old days. There seemed then to be only one theory, that of "Sanguinary Engorgement." This was then apparently the universal theory and as a remedy for this engorgement the lancet was in general use.

I cannot better illustrate the practice than to report a case I had a number of years ago.

I was called early in the morning to see a young lady in her first confinement. On my arrival and diagnosing her condition, I found she had had a half dozen or more convulsions. On the theory of sanguinary engorgement, I was in unison with the medical profession of that day. This being a case in which all appearances indicated engorgement, I unsheathed my lancet and bled her to the extent which, in my judgment she could bear.

This only lessened the frequency and severity of the convulsions. They did uot come so often, but still they continued during the day and towards evening were more frequent. I opened the vein and bled her the second time as far as prudence dictated, but she still had convusions throughout the night.

In the morning they were still frequent. I opened the vein the third time, and bled as far as judgment and prudence dictated; then followed with an opiate. The patient slept all day without a recurrence of convulsions, waking up in the evening in a rational and conscious condition. She had been all the time unconscious from the day before and did not know until then that she had had a labor. In my diagnosis I found nothing outside a natural labor save convulsions and tardiness of advancement, which at that time seemed to be entirely lacking. At this time, from the slowness in advancement, I became restless and concluded that to save the woman, I would have to perforate the head of the child to terminate labor, and got out my instruments for that

purpose, but on a re-examination from time to time, I found the labor had advanced, which fortunately, caused me to delay perforation, for during the night a fine, healthy, well developed child was born. The woman made a rapid recovery, and had several children afterwards without convulsions.

In regard to treatment, the foregoing was the sum total in this particular case.

Medicine in an early day was not so much a science as now; it was a kind of routine handed to us by a former generation; hence, to that time there was but little progress; but as time passed medicine began to show signs of scientific progress, which set the doctors to thinking and investigating the various problems of medical science, and among the many disorders which needed a change from routine to science was puerperal eclampsia, which had great fatality under the old routine system of treatment.

I, in common with the doctors holding to the same theory, had to investigate. We had no coal tar preparations as antipyretics and to control the heart and arteries we relied on veratrum viride, which had long been in use.

In my investigation of the subject, it occured to me that a medicine that would control the heart and arteries would be in place in treating eclampsia.

In the course of time, I had another patient with puerperal eclampsia who had half a dozen convulsions before my arrival. I put in practice my theory. The pulse was above the normal standard, I gave Norwood's Tincture of Veratrum in repeated doses until the pulse was brought to the normal standard and kept it there by an occasional dose. The convulsions subsided and the labor went off naturally, without any other untoward feature in the case. I had other cases after this that I treated with like results. After this I was consulted by an epileptic patient and applied the same principle, that had reached such good results in puerperal eclapsia. I gave him the veratrum viride, but he had no confidence in anything, having tried so many without any good results. Nor did I expect to cure him of a malady that had always proved incurable, but I thought it might mitigate the severity of his convulsion to some extent.

I had not long since, in some medical periodical, read a report on the toxic effects of veratrum viride by some doctor, who said the toxic effect was not as great as ordinarily supposed by the profession; when given in large doses not more so than the emetics in common use.

I used it with extreme caution, prescribing it in the medicinal doses and never leaving it without an experienced nurse, who was a judge of the circulation. I used it as a febrifuge in various disorders, viz.: typhoid fever, pneumonia, membranous croup and other disorders, and vomited cases of membranous croup when the ordinary emetics failed, discharging false membrane.

I infer from the foregoing report that the danger is not greater than the ordinary emetics.

A HOUSE EPIDEMIC OF SYPHILIS.

Thanks to a better knowledge of the dangers and modes of transmission of syphilis and to superior habits of cleanliness, epidemics of the disease are rare in America; yet they occur among the lower classes of our population with greater frequency than is generally supposed. In the New York Medical Journal of March 26th the writer records one in which the disease was introduced into the family, according to the history, by vaccination, and in which every member of the family of eight was ultimately infected. The first case was a child of two years; then the mother, aged thirty-four; then two girls, aged nine and fourteen respectively; then a boy of four; then a girl of seven, and then a nurseling, aged six months. The father escaped until the last, but late in the spring he came to the clinic with a characteristic eruption, alopecia, etc. The cases were all severe; there were several irites; all had obstinate and some very extensive mucous patches, and the two-year-old child had a syphilitic pneumonia. The site of inoculation was discoverable in two cases only, probably on account of the lateness and irregularity with which the patients were brought to the clinic. In the mother it was upon the center of the cheek, and in one girl it was upon the eyelid. The family was very poor, living in one room, and their habits were very uncleanly.—William S. Gottheil, M.D.

STERILIZATION OF CATGUT.

Dr. T. F. Murphy, of Halifax, N. S., in a paper read at N. S. Branch British Medical Association, March 2, 1899, says: Catgut is made from the submucosa of the small intestine of the sheep. Volkman says: "The process of maceration, by which the mucous, serous and circular muscular constituents of the intestinal wall are prepared for their mechanical removal, involves decomposition and permeation with millions of micro-organisms, among which have been found the bacillus anthrax and its spores."

There are a great many methods of sterilizing catgut. They may be divided for general reference into two methods:

1. The method of sterilization by "antiseptic" means
2. The method of sterilization by "mechanical" means.

As regards the first method, the best is that which is called "Chromicized catgut." This has one advantage over the other methods in that while it does not injure, it thoroughly disinfects and toughens the catgut. The stronger the solution the longer the sutures will last.

Morris, of New York by grading the proportions of his preparations, has produced catgut sutures which last as long as 24 days.

Bissell uses bichloride and alcohol.

The older methods of juniper oil, carbolic acid and many other, have been abandoned. Some are unreliable and the others impair the suture material. Some surgeons have one objection to chromicized gut, believing it is not suitable for use in the abdominal cavity.

Stinson of San Francisco says (Philadelphia Medical Journal, Vol. 2, Page 841.); "The catgut I use I prepare myself. I may state that two sizes of catgut are all one needs, Nos. 20 and 25, according to the American wire-gauge system. The preferable form of catgut is that put up in bowlines, each about one yard long, and rolled separately in bunches."

He further says: "To prepare the catgut:

1. Place the bowlines in ether for several days to remove fat.

2. Change to a sterilized vessel containing 1 to 4,000 corrosive sublimate in pure ether in which the gut is kept one week to disinfect. To complete the process, and have the

material in the most suitable fluid, place the gut in a sterilized bottle, with a screw or other air tight top. Pour in ordinary alcohol to more than cover the gut. The alcohol should fill only half the bottle. Stand the bottle in water which reaches nearly to the lower edge of the screw top. In order not to take a chance of breaking the bottle, stand it on a folded towel, placed in the bottom of a vessel containing the water, which is heated to the boiling point. When the air is driven from the bottle by the boiling alcohol, screw down the tap tightly. It takes a couple of minutes to drive off the air. Leave the sealed bottle in the water at the boiling point for fifteen minutes. At the lapse of the time the bottle is removed, allowed to cool, and then the gut is ready for use. There is no danger of an explosion with the top screwed down tightly. If one wishes to chromicize the gut, then after removing it from the bichloride-ether solution, place it in an alcoholic solution of potassium bichromate made as follows: Take 15 grs. of potassium bichromate, disolve it in an ounce or so of sterilized water, add the chromate solution to a pint of ordinary alcohol (sterilized). Leave the gut in this solution till it is a golden color (usually about 24 hours are sufficient), when it is removed and placed in a sterilized basin and sun dried; which takes a couple of days or longer. The gut is then placed in a sterilized bottle with an air tight top, alcohol is poured in to more than cover the gut, and boiled as already described. The gut is sun dried to get the same effect which is obtained in the process of tanning hides. The bichromate of potash penetrates the tissues of the gut and becomes so intimately associated with the fibrils that it is not dissolved out by heat and solutions. Only a comparatively short portion of the surgeon's time is engaged during the processes described, in return for which he has an absolutely sterilized material. The tendons, catgut and silk I use during operations are placed immediately before them, between sterilized folded towels wrung out of 1 to 500 mercuric chloride solution."

Formalin and formaldehyde catgut have not come up to general expectation. However, some prominent surgeons are still using them. Neither the gas nor the solution will destroy spores.

In the Lancet, Oct. 22, 1898, Kanthack says that formalin is "merely a superficial disinfectant," and that "dust and soil are not sterilized with certainty" by it.

The second method—that of sterilization by "mechanical"

means. Under this head the best known is that of boiling in alcohol under pressure. For a long time this was considered to be the best possible means of sterilizing catgut, and surgeons were inclined to blame their technique more than their sutures for the rather frequent outbreaks of sepsis. But some, among others Dr. Howard Kelly of Baltimore, boldly accused the catgut, or rather the method of preparing it.

Konig's method then came into use.

This consisted in first subjecting the catgut to a temperature of 75°C (167°F) in a sand bath and keeping it there one hour to drive off the hygroscopic water. Then it was placed in cumol, which was raised to a temperature of 165°C (330°F). This temperature was sustained for one hour. Then the catgut was placed in benzine; and so kept ready for use. But the pathologists of the Johns Hopkins hospital found that benzine itself was not sterile and that it reinfected the catgut. Then Dr. Kelly devised the following plan:

First cut the catgut into suitable lengths, next twist them into "figure of eight" and tie, so as to easily slip them into an ignition tube. Then subject the catgut to a temperature of 80°C (176°F) for one hour, to drive off the hygroscopic water. Next put in cumol and raise it to a temperature of 165°C (330°F) and keep it at that for one hour. Now draw off the cumol and keep the catgut in the sand-bath at a temperature of 80°C (176°F) to dry it. This takes one hour. Then finally put the catgut with sterilized forceps into sterilized ignition tubes, and cork with sterilized absorbent cotton.

Here you have a catgut perfectly sterile, flexible and unimpaired in the slightest degree, by the long and tedious process through which it has gone. This catgut lasts from eight to ten days. Now at times it might be desirable to have this catgut last a little longer, as for instance in an operation for the radical cure af hernia. This can be done by soaking the catgut, first prepared as above, in a solution of bichromate of potash ʒi—ʒii to ʒxx. Boil this solution and immerse the catgut in it and keep it there a week or longer, either dry in a sand-bath at a low temperature or keep it permanently in it, until ready for use. This catgut will last fifteen days or more.

When I first began to use cumol catgut, I prepared it with a glass beaker, imbedded in sand in a butter-crock. I boiled the cumol at about 175°C, which made it thick, turbulent and brownish-yellow, and after using it once it had to be

thrown away. I had two accidents, caused by the vapor of the cumol becoming ignited.

Miss Pride, the Halifax Superintendent of the Victorian Order of Nurses, states that they had two fires at the Waltham hospital from a similar occurrence.

Dr. Howard Kelly in his book on "Operative Gynæcology" makes mention of a similar event.

This apparatus—a cumol sterilizer, which I now present, is made after the pattern given in Kelly's work. It was made in Halifax, and consists of an internal cylinder of copper, six inches in diameter, eight inches in depth, and an external cylinder which is separated from the other by a space of an inch. This space is filled with sand. The top of the external cylinder comes within an inch and one-half (1½ inches) of the top of the internal cylinder. A copper cover which has a flange, is fitted tightly by means of three thumb screws, to another flange which projects from the edge of the internal cylinder. There is a glass gauge to show the height of the cumol in the internal cylinder, a funnel to pour the cumol in and a tap to let it out, at the end of the second step in the sterilizing process. A thermometer passes through the cover and registers the temperature, and a pipe to which a rubber tube is attached carries away the vapour. By means of this apparatus the above process can be gone through with perfect safety, and if the temperature of the cumol be not raised above 165°C (330°F) it can be drawn off and used again.

Boeckman's method of dry heat, much used by surgeons, consists in subjecting catgut in an oven to a temperature of about 140°C. This makes it absolutely sterile but renders the catgut rather brittle. This objection also applies to the Tschering method. (Phil. Med. Journal quoting from Lancet of Oct. 22, 1898. "The following is the method of sterilizing catgut by hot air, adopted by Tschering, of Capenhagen.

Ordinary commercial catgut is placed on trays between sheets of cellulose paper and heated for six hours consecutively; fer the first hour at the temperature of 60°C, for the second and third hours at 100°C, and for the fourth, fifth and sixth 140°. The catgut is then wrapped up and closely sealed in an envelope of cellulose paper, which is in turn enclosed in a second envelope, and subjected for another two hours at 140°C. The sterilization is thus effected by dry heat alone. The simplicity of the method is its most attrac tive feature."

I fail to see the simplicity in the above method. As a

matter of fact to have catgut properly prepared, it takes as much elaboration of technique as does the most serious operation. The hands I disinfect by the permanganate of potash and oxalic acid method, and aprons, gloves, tubes or receptacles, towels, etc., are sterilized by steam. Forceps are boiled. —Maritine Med. News.

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EDITORIAL.

FUSION THE ORDER OF THE DAY.

Two of the oldest medical colleges in St. Louis, Mo., viz. the St. Louis Medical College and the Missouri Medical College, have combined to make the best medical school in St. Louis. This will be in future known as the Medical Department of Washington University. Only a year ago such a fusion occurred in New York, and this year, as a sign of the times, a sign that signifies there are too many medical schools in the country, the Woman's Medical College of the New York Infirmary for women and children has decided to close its doors to undergraduates. It is, however, hinted that the infirmary may be opened for more advanced clinical teaching; that is, as a post graduate school. The tone of medical education is becoming so high that amalgamation, which means strengthening, must be in the near future the destiny of many of the smaller schools, if they are to have an existence at all.

Post graduate instruction, whether by special schools or

through medical societies, is now felt as a necessity by every thinking medical man. Medical societies, as a result, have been and are being organized in every section of the country. In isolated counties the small medical society does a magnificent work, but in populous counties a single large medical society yields more influence than a number of small ones. Recently a number of medical societies in Chicago adopted a wise course and united to form one strong body, that will be able to work with great advantage to the profession of that city, but will also reflect credit on medical men throughout the whole country.

Medical journals play no small part in the post graduate medical teaching of this country. These papers convey to every doctor, no matter how far he may be situated from medical centers, the very latest theories and practice. In the press for better work and more thorough instruction they are not behind. Amalgamation is found to be an advantage, if not a necessity. As a result the Kansas City Medical Index and the Kansas City Lancet will in future be under one management and will be published as one journal under the title of Kansas City Medical Index-Lancet. The Medical Standard and the North American Practitioner, both of Chicago, will hereafter be found in one. Such an union will be one of strength. The readers of these two good publications will no doubt find that in the future their reading matter will be of a better quality.

AMERICAN PROCTOLOGICAL SOCIETY.

During the recent meeting of the American Medical Association at Columbus, O., the prominent Rectal Specialists of the country formed themselves into a society with the above title. It gives us much pleasure to find amongst those invited to be enrolled as charter members Dr. A. B. Cooke of this city, who is lecturer on Rectal Diseases in the University

of Nashville. Dr. Cooke, by his writings on subjects pertaining to his specialty has attracted the attention of the profession at large. The next meeting of the society will be held in Washington, D. C., May, 1900.

NATIONAL EDUCATIONAL ASSOCIATION.

This year the National Educational Association will hold its annual meeting in Los Angeles, Cal., and everyone should take advantage of the wonderfully low rates and visit "Golden California." Southern California is equally as interesting in summer as in winter, and in easy reach of Los Angeles are all those tourist resorts that have made this region so famous. The average daily temperature of Los Angeles for July is sixty-eight degrees, which, in addition to the beautiful scenery, etc., makes it one of the most delightful snmmer resorts to be found. The nights are cool, dry and refreshing, as there is always a breeze from the mountains.

Los Angeles is situated in the Southwestern part of California, but a few miles from the seashore, Santa Monica, Santa Barbara, San Diego, also the orange districts, Colton, Redlands, and Pasadena. Side trips to all points of interest have been arranged for those holding National Educational Association tickets, and passengers can visit these points with but slight additional cost.

The rate authorized for this occasion is one first-class fare for the round trip, plus $2 for membership fee. Total rate from Nashville, Tenn., is $62.35, and other points in proportion. For children between the ages of 5 and 12 the rate will be one-half the above.

Tickets will be on sale from June 24th to July 7th, inclusive, going journey to commence on date of sale as indicated by stamp of selling agent, passengers to reach Los Angeles not later than July 11th. Return journey to commence on date of validation at Los Angeles with final limit to reach

original starting point not later than September 5, 1899. Special attention is called to the long transit limit in both directions, which permits unusual advantages for stop-overs and sight-seeing.

Western lines have arranged for stop-overs, within the transit limit at points west of and including El Paso, Texas, Trinidad, Pueblo, Colorado Springs and Denver, Col., Cheyenne, Wyo., and points correspondingly located on transcontinental lines. That is to say that passengers are allowed the privilege of stopping off west of the above named points, provided they reach Los Angeles on going trip not later than July 11, and provided they reach original starting point not later than September 5.

The Nashville, Chattanooga & St. Louis Railway offers its patrons the choice of the best and most picturesque routes. The rate of one first-class fare for the round trip, plus $2, applies via direct routes going and returning, or by any variable route making same rate for this occasion.

Upon application to W. L. Danley, General Passenger Agent, Nashville, Tenn., any further information can be secured.

A VOICE FROM THE HALL OF THE SETTING SUN.

In this number of the BULLETIN will be found an article upon Eclampsia, sent us through Professor T. L. Maddin, by the author, Dr. W. E. Harroway. Though upwards of eighty and compelled by bodily infirmities to abandon the active practice of medicine, yet his enthusiasm over the rapid strides made by scientific medicine is as great to-day as it ever was. Dr. Harroway, after some years of practice under the State laws as they existed fifty years ago, came to Nashville in 1855, took a course of studies and received his degree. Professor Maddin was already at that time a medical teacher. Under his guidance Dr. Harroway worked, and now when the

years are waning he remembers with pleasure and gratitude the kind and helpful words spoken so long ago.

The article sent us was read at the meeting of the local medical society of which the doctor remains an active member.

PERSONAL.

Dr. L. W. Bayne, class '99, after a successful examination before the Mississippi State Board, has settled in Hattiesburg, Miss.

Dr. Albert Townsend has located in Rowen, Ala. He was recently before the Alabama State Board for his lieense, and speaks highly of the practical examination given him. He was successful.

Dr. Baine Moore passed the Kentucky State Board and has associated himself in practice with his father in Clay, Ky.

Dr. W. E. Bartlett, Kirkmansville. Ky., who has been sick lately, writes us he is improving rapidly.

Dr. J. R. Gott, '98, is in Victoria, Tenn., and doing well.

Dr. John Jenkins has located at New Gascony, Ark., where he is meeting with success.

BOOK NOTICES.

MERCK'S 1899 MANUAL OF THE MATERIA MEDICA—Leather, Pp. 192. Price, $1.00. New York: Merck & Co. This is a pocket book, as essential to the busy practitioner (especially the country doctor) as is a purse to a traveler. It gives a short but clear account of the newer drugs. Merck's name alone is a sufficient guarantee of its reliability.

AN EPITOME OF THE HISTORY OF MEDICINE—By Roswell Park, A.M., M. D., Professor of Surgery in the Medical Department of the University of Buffalo, etc. Based upon a course of lectures delivered in the University of Buffalo.

SECOND EDITION. Illustrated with Portraits and other Engravings. 6½ x 9½ inches. Pages xiv—370. Extra cloth, $2.00 net. The F. A. Davis Co., publishers, 1914-16 Cherry street, Philadelphia.

Dr. Park's book fills a place that is too much neglected. It is strange that medical teachers do not impart more knowiedge of the history of medicine to medical students. Is it because they themselves are ignorant of the subject? Every institution of advanced standing should compel its graduates to know something of the early history of the profession. Medical men who have practiced ever so short a time must have felt this lack of instruction, and they will welcome this addition their libraries. The price places it within the reach of all.

THE ANATOMY OF THE CENTRAL NERVOUS SYSTEM OF MAN AND OF VERTEBRATES IN GENERAL—By Prof. Ludwig Edinger, M.D., Frankfort-on-the-Main. Translated from the Fifth German Edition by Winfield S. Hall, Ph. D., M.D., Professor of Physiology in the Northwestern Medical School, Chicago, Assisted by Philo Leon Holland, M.D., Instructor in Clinical Neurology in the Northwestern University Medical School, Chicago, and Edward P. Carleton, B.S., Demonstrator of Histologic Neurology in the Northwestern University Medical School, Chicago, Illustrated with 258 Engravings. 6½ x 9½ inches. Pages xi-466. Extra cloth, $3.00. The F. A. Davis Co., publishers, 1914-16 Cherry street, Philadelphia.

This, the fifth edition of Prof. Edinger's work comes at an opportune time. So much has been done in the last few years to advance our knowledge of the nervous system and its diseases that the men who graduated a decade ago find the theories they then were taught must be unlearned. Specialism in medicine has been born of necessity and must continue to thrive and grow so long as original work is a necessity. necessity. Perhaps of all the specialties, that of the Neurologist is the least interfered with or understood by the general practitioners, and yet it is the one above all others that the family doctor can and should have a knowledge of. He can only obtain that knowledge by first mastering the anatomy of the nevous system. Without a knowledge of the normal, the pathological cannot be understood. Gray's Anatomy is not more essential to the up-to-date physician than is *Edinger's Anatomy of the Central Nervous System.*

SECTION ON THERAPEUTICS.

UNDER CHARGE OF W. G. EWING, M.D.,

PROFESSOR OF MATERIA MEDICA, THERAPEUTICS AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

TREATMENT OF SKIN CANCER.

We are now able to define cancer as a malignant neoplasm which consists of a proliferating epithelial cell mass, arranged in an alveolar cone-like or tube-like manner, together with a connective tissue stroma in a condition of inflammatory infiltration. This definition applies to epithelial cancer, to which epitheliomata belong, but does not apply completely to some other forms which cannot be included in a general definition.

Skin cancers (all forms) occur most frequently upon the face. Other portions of the body may be the seat, as the genitala, upper and lower limbs.

The prognosis of epithelioma of the skin is more favorable than that of all other forms of cancer in any locality. Cancer is at first a purely local disease and not a manifestation of a constitutional condition, hence a thorough removal, before it has invaded other parts, of the growth is equivalent to a cure of the disease.

Treatment.—Our object should be to thoroughly remove all tissue involved with as little scar and deformity as possible and the least amount of destruction of normal tissue.

Where it is possible to remove large amounts of tissue without injury to the patient, undoubtedly the knife is the best agent to use. In epitheliomata of the skin about the face, brow, eyes, lips, nose and ear, caustics are the most suitable. The stronger caustics, as caustic potash, chloride of zinc and arsenious acid are preferable.

Caustic potash should be used only when small diseased areas are involved. It can be used in solution, stick or Vienna paste (equal parts of potassa and lime in paste). Chloride of zinc can be used in solution, in collodion, or as a paste combined with a local anesthetic. Arsenious acid in the form of Marsden's paste (two parts acid to one of gum acacia) or some modification (in strength) thereof is the best agent in

treating skin cancer of the face. In any case where the papule or nodule is unbroken we should curette the surface before applying the paste. The paste should cover sufficient area to be destroyed. It should be left on from twelve to twenty-four hours, to be renewed if evidence of any growth remains. When sufficient destruction is had the wound is to be treated simply, and no attempt made to heal it antiseptically.—Dr. A. D. McConachie in Maryland Med. Jour.

PYOKTANNIN IN CANCER.

Pyoktandin or methyl-violet is an aniline dye, and was brought out by Stetting of Strasburg, who stated that it would penetrate tissues and act upon deeply imbedded pathogenetic micro-organisms. According to Shoemaker, when taken internally, it is excreted by the kidney, and the urine of patients taking the drug will remain aseptic for three weeks and that, according to Ehrlich and Deppman, given hypodermically it would relieve neuralgic and rheumatic pains. Von Mosetig and also Nanu claimed that its injection into the neighborhood of inoperable tumors retarded their growth and apparently cured others. Dr. Robert F. Weir, of this city, gave it an extensive trial and abandoned its use, reporting negative results in the treatment of carcinoma. Maibaum, however, reports three cases of advanced cases of carcinoma of the stomach treated with pyoktannin. The drug was administered in grain doses three times a day, in pill form, or taken as a suppository with extract belladonna. In all cases the treatment was followed by marked improvement both in the local and general condition of the patients. Maibaum concludes that pyoktannin arrests the disintegration of the carcinomatous growth and benefits patients suffering from cancerous cachexia. In most cases, the patient cannot take the full dose, as it produces decided nausea and vomiting. In such a case, reduction of dose and administration by rectum will obviate the disagreable symptoms.

Experiments prove that pyoktannin certainly possesses virtues that might be helpful in a certain class of inoperable cases of cancer.

It is clearly beyond the intention of the writer to offer this effort as a contribution to the numberless "cancer cures." Great harm could be done by the mere suggestion that any remedy, particularly a new one, had any curative influence

on cancer, and the suggestion is made that as but little has been done in observing its action, taken internally, great relief might be obtained in inoperable cases by its intelligent and proper administration.—Dr. W. F. Honan in The Med. Times.

PARALDEHYDE IN ASTAMA.

In the treatment of hospital out-patients suffering from asthma morphine hypodermically is out of the question and it is not usually advisable to prescribe chloral in such cases. Paraldehyde is absolutely safe. It not only relieves the spasm, but it induces tranquil, refreshing sleep without any objectionable after-effects. Besides, no evil results follow a prolonged use of paraldehyde; it does not give rise to a habit, and on this account it is a much more desirable drug than morphine or chloral. That it has hitherto not been much used in the treatment of asthma one may safely conclude from the fact that neither in Allbutt's "System of Medicine" nor in "Twentieth Century Practice of Medicine" is it mentioned among the drugs given as useful in the treatment of the disease.

Its disagreeable pungent taste makes it objectionable to children and nervous parents, but it is well disguised in cinnamon water and tincture of orange peel. It acts so rapidly that the dose should be taken after the patient is in bed. Dr. Alexander McGregor in the New York Lancet.

INTESTINAL HEMORRAAGE DURING RELAPSE OF TYHOID FEVER.

In a severe case Dr. S. Solis-Cohen advised the following line of treatment:

1. Fluids (water and food) to be cut down to the lowest possible point, not more than one ounce at a time to be given for several days; and not oftener than every second hour.
2. Milk food to be stopped, and the expressed juice of beef, freshly prepared, to be the sole food.
3. Morphine to be given by the skin in sufficient doses to keep bowels quiet and patient at rest (⅛ grain every fourth hour was suggested as a tentative dose).
4. An ice-bag to be continuously applied over the abdomen, especially over the seat of tenderness and rigidity in the right iliac fossa.

5. Heat to be applied to the lower extremities.

6. If symptoms of collapse, great weakness of pulse, or excessive fall of temperature should seem to call for temporary stimulation, hypodermatic injection of strychnin or camphorated oil (10 per cent.) to be given; the dose to be the smallest that will suffice. These injections not to be given unless clearly necessary and not to be repeated without clear indication.

7. In case of hiccough, distressing nausea, or vomiting, the stomach to be washed with physiologic salt solution; the patient remaining recumbent.—Philadelphia Polyclinic.

MORPHIA.

In some cases physicians fail to use the care that they should in giving morphia to strangers, on the mere profession of pain. In how far, moreover, physicians are responsible for the growing habit formed by patients, to whom they give injections for pain, for loss of sleep, for asthmatic attacks, or other apparently good reason, is a grave problem. Certain it is that, in many cases, the bold use of morphia gives relief and brings about recovery as nothing else can, and no bad habit results. Certain it is, in other cases, one dose necessitates a second, this a third, and so on.—Philadelphia Polyclinic.

SECTION ON ABDOMINAL SURGERY AND DISEASES OF WOMEN.

UNDER CHARGE OF M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

RELATION OF IDIOPATHIC DILATATION OF COLON TO PHANTOM TUMOR.

Of late years, reports of cases of phantom tumor have almost wholly disappeared from medical journals.

In the meantime, a considerable number of cases have been published, the characteristics of which closely simulate those of phantom tumor, but the tumor proves to be permanent enlargement of the colon. Gee has described the condition as idiopathic dilatation, and, for want of a better ex-

planation of its etiology, attributes it to constipation and the retention of wind.

A recognizable congenital cause occurs only in the few instances in which a malformation of the lower part of the colon or rectum has been found.

It is considered probable that constipation is the chief factor in the production of idiopathic dilatation both in the infant and in the adult.

The two affections—chronic phantom tumor and idiopathic dilatation of the colon—are considered identical. The symptoms are similar; in each, the tumor subsides in anæthesia, to return when consciousness is recovered; and the phantom tumor, after laparotomy, has proven to be a dilated colon. The phantom tumor has no necessary relation to hysteria, and idiopathic dilatation of the colon may occur in neurasthenic or hysterical persons. Finally, cases of phantom tumor in medical journals have been replaced by examples of idiopathic dilatation of the colon.

Resection of the dilated sigmoid flexure is advocated in the treatment of suitable cases of the affection in question. Suitable cases are those in which the condition has existed for so long a time as to indicate a permanent enlargement, and especially when associated with serious discomfort or suffering.—Reginald H. Fitz, A.M., M.D., Virginia Medical Monthly.

VAGINAL HYSTERECTOMY.

Dr. James N. Ellis recommends vaginal hysterectomy in the following conditions:

1st. All operable malignant diseases of the os, cervix, or body of the uterus;

2nd. Suppurative bilateral diseases, or incurable inflammations of the appendages;

3rd. Complete prolapse;

4th. Incurable chronic inversions;

5th. Operable (septic) puerperal metritis;

6th. Myoma, or fibro-myoma (with morcellement when necessary), unless there is some special contra-indication to to the vaginal procedure, such as excessive size, or extensive adhesions.

Submucous fibroids of large size may be frequently removed by tunnelling with the "tubes tranchant" of Doyen, and morcellement without removing the uterus.

Roughly speaking, a fibroma or myomatous uterus, which does not exceed the limits of the pelvic basin, is easily removable per vaginam. But even when the diameter of the tumor exceeds that of the superior strait, and the uterus is thoroughly immobilized, it may frequently be removed with the assistance of the tube tranchant. Myomata reaching to the umbilicus may be removed, together with the uterus, through the vagina by morcellation, with more trouble to the operator than danger to the patient; and finally,

7th. In excessively corpulent patients, with abdominal walls thickened by several inches of ugly, yellow fat, the vaginal operation is easier and safer.

In view of these facts, we must recognize that the vaginal method is a procedure of superlative value, and one that should not be lightly ignored or discarded. We should not habitually practice either vaginal or abdominal hysterectomy, but select the method that applicable to each case, preferring the vaginal when in doubt.—Virginia Medical Semi-monthly.

CONSERVATISM IN PELVIC SURGERY.

The following rules may be laid down for guidance in the practice of conservative pelvic surgery:

1. An ovary should not be removed simply because the tube of its side has been taken out.

2. Wherever it is possible in cases of parovarian cyst, the ovary should be left.

3. In cases of adherent ovary, every effort should be made to so relieve its adhesion as to not tear it out from its insertion into the broad ligament, with a view of leaving it intact.

4. So-called Graafian cysts may be punctured with a knife or scissors, or by cautery.

5. Hematomata may often be dissected out where they do not involve too much of the ovarian tissue.

6. Frequently small ovarian cystomata and ovarian abscesses may be so manipulated as to preserve the functions of the ovary.

7. Tubes may be preserved not infrequently by proper care. Adherent tubes are released, strictured tubes are opened, and tubal abscesses may be frequently drained—Thos. B. Eastman, M.D., Indiana Medical Journal.

SECTION ON MEDICAL CHEMISTRY.

UNDER CHARGE OF J. M. KING, B.S., M.D.,

PROFESSOR OF CHEMISTRY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; CHEMIST TO STATE OF TENNESSEE.

Believing that there is no subject of greater importance to the profession of the United States at the present time than that of deranged digestion and sequences, the Editor inserts the following extract as a whole.

Hereafter it will be the aim of the Editor of this Section to furnish the readers of the BULLETIN such material as will be of real value to them in the study and treatment of disease as far as Chemistry deals with the subject.

THE RELATION BETWEEN HYPERCHLORHYDRIA AND THE MOTOR DERANGEMENTS OF THE STOMACH.

First, I will define the meaning of these terms. Hyperacidity is an excess of the natural hydrochloric acid in the gastric juice above 2 parts per 1000. Motor derangement is a want of proportion between the expulsive force of the stomach, and the closing force of the pylorus, whereby the food and products of digestion remain too long in the stomach. It is usually the result of spasm; less often of stricture of the pylorus, and has as the usual atony, and dilatation of the stomach. According to Bouchard[1] seven-eights of all persons complaining of gastric disorders have dilatation. Geo Herschell[2] says that one-fourth of all cases of indigestion have hyperacidity, or, what is a more expressive name, hyperchlorhydria. In a majority of all painful disorders of digestion, there is hyperchlorhydria.[3] Hyperchlorhydria may be either the cause of motor derangement, or the effect of it.[4] Hyperchlorhydria can cause pyloric spasm according to Boas,[5] Ewald,[6] Van Valzah.[7] In dogs direct experiment of placing a stronger than normal HCl in the stomach causes pyloric spasm.[8] Pyloric spasm is at first beneficial; it is to protect that intestine from the acrid stomach contents.[9] Pyloric closure can cause hyperchlorhydria. With a normal amount of HCl (2 parts per 1000) or even double this, fermentation always occurs in the stomach when there is any

mechanical obstacle to the discharge of its contents.[10] The fermenting contents by their irritation cause more HCl to be formed, and a condition of hyperacidity is permanently established. Doyen says that the pyloric spasm or stenosis is the cause of the most varied gastric disturbances and the most persistent anatomical lesion that accompanies it. A. A. Berg says that hyperacidity and other clinical manifestations are dependent on stagnation due to spasm or stenosis of the pylorus.[12] In a series of 84 cases of gastric disorders subjected to operation by Carl and Fantino, in 41 there was hyperchlorhydria with benign stenosis. In all of these the hyperacidity ceased as soon as the motor functions of the stomach were restored by the operation.[13] Linossier maintains that every case of hyperchlorhydria has as a basis a pyloric stenosis; this may be spastic or organic.[14] Which is primary? Probably the hyperchlorhydria; for a history of a burning pain in the stomach lasting two or three hours after meals, or acid eructions into the throat, can be had in almost every person, with any gastric disorder; it is usually the earliest sign that is noticed.

An irritation of a hollow organ always precedes spasm of the sphincters of the outlets; as of the bladder, in cystitis; rectum, in fissure; larynx, in croup or foreign bodies. The process is like that in fissure of the anus; the irritation of an overloaded rectum, combined, perhaps, with slight abrasions, causes and maintains a spasm of the sphincter ani with pressure. As soon as the fissure is well established, it increases the spasm and constipation, which constipation is relieved with certainty by stretching the sphincter, which cures the fissure. Having established the frequency of the conditions, their importance, and their relation to each other, it is necessary to speak a little about the treatment.

For motor disorder there is no medicine; for severe cases of stagnation which threaten life from inanition, surgical procedures alone avail—gastroenterostomy, pyloroplasty, or resection. A liquid or finely divided diet relieves for a long time. As far as the hyperacidity is primary, a sedative diet and medication will often relieve this and the secondary pyloric spasm, as described by me in Pacific Medical Journal, March, 1899. A sedative diet is one which causes the secretion of only as much HCl as it can combine with, so that little or no free HCl is in the stomach during digestion. That excites the HCl secretion for the shortest possible time. Milk is the type of a sedative diet, for it combines in health with

all the acid secreted; leaves none free in stomach, and passes out of the stomach in about ninety minutes. The larger a piece of meat is, the longer time it takes to be dissolved, action taking place from the surface of each piece. Mincing meats and fish very fine, grinding or mashing vegetables to a paste makes them more sedative to the stomach, for they dissolve more quickly and pass out of the stomach, and they neutralize the free acid more quickly. All tonics, spices, condiments and relishes are exciting, as also sugar, wines and alcoholic liquors.—A. W. Perry, M.D. in Pacific Medical Journal.

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[1]Auto-intoxication, Paris, 1884.
[2]Herschell, Indigestion, London, 1895.
[3]Matthieu and Remond, Soc. Med. des Hopitaux de Paris, 1891.
[4]Van Valzah and Nisbet, Disease Stomach, N. Y., 1898, p. 311.
[5]Boas, Magenkrankheiten, page 203.
[6]Ewald, Diseases of the Stomach, p. 425.
[7]Van Valzah, op. cit., p. 311.
[8]Imredig, Wien. Med. Presse, No. 13, 14.
[9]Morritz, Virchow's Jahresbericht, 1895.
[10]Boas, Mermorabilien, July, 1897.
[11]Doyen, Chirugee de l'Estomac, Paris, 1897.
[12]N. Y. Med. Record, July 30, 1898.
[13]Gaz. d'Ospedale de Clinico, July, 1897.
[14]Semaine Medicale, Feb. 16, 1898.

GASTRIC TOXINS.

Zahorsky reviews the subject of the gastric poisons, more especially those of animal origin, leucomains and ptomains. Other chemic poisons, such as acids, proteoses, glycerids, etc., have their origin, physiologic or pathologic, in the organism, and should be considered. The excretion of leucomains by the gastric mucosa is a matter for more careful study than it has received, and it is probable that many gastric irritations are due to this cause, and evidence that gastric ulcer may be originated in this way is accumulating. Bacterial poisons, endogenic and ectogenic are important, and in this connection Zahorsky mentions tyrotoxins and butilotoxins, the endogenic bacterial products pointed out by Bouchard, etc. Tetany has also been attributed to poisons generated in gastric dila

tation. The general subject of gastric toxicologic chemistry is assuming immense proportion and has only begun to be studied.

OXALURIA.

Williams reports three cases of oxaluria and concludes that the appearance of oxalates in the urine, aside from the ingestion in food, is indicative of a derangement of digestion or metabolism, caused in many cases by functional nervous irregularities that may or may not cause general nervous symptoms. If these are present it is not certain that they are due to the oxaluria. The condition producing the latter may simulate Bright's disease, as in two of the cases reported. The renal excretion of oxalates, too, may, if continued, cause irritation producing albumin and casts with lessened urine, and if unchecked may lead to kidney disorders, in time to Bright's disease. In all suspicious cases of apparent Bright's disease with oxaluria, the diagnosis should be reserved until this symptom has been treated and results observed.

REACTION OF URINE DURING THE STAGE OF RESOLUTION IN PNEUMONIA.

The author reports a peculiar and hitherto unnoticed symptom in the urine during the course of pneumonia. This symptom is manifested from twenty-four to forty-eight hours after the crisis, when the stage of resolution is reached. The urine, which up to that time has shown a strongly acid reaction, becomes neutral, and within twenty-four hours often markedly alkaline. This symptom lasts for a day or a day and a half, and then disappears. It has been observed by the author in thirty-one out of thirty-eight (nearly eighty-two per cent. of his cases), and is by him attributed to the absorption of the exudate, which has been shown to contain a large percentage of sodium.

Rosin, of Berlin, in supporting this theory of the cause of the above symptom, related the history of a case of migraine under his observation, in which every attack was followed by a discharge of alkaline urine, heavily loaded with phosphates. —Dr. F. Pick in Gaz. d. Hop.; Ref. Pacif. Med. Jour., xli., No. 12, p. 740.

SOCIETY MEETINGS.

AMERICAN MEDICAL ASSOCIATION.

The fiftieth annual meeting of the representatives of American Medicine was called to order in Columbus, Ohio, June 6, by Dr. Starling Loving, Chairman of the Committee on Arrangements. The Association was welcomed by Gov. Bushnell, of Ohio, and the Hon. Samuel J. Schwartz, Mayor of Columbus.

President Joseph M. Mathews, of Louisville, in his address referred to the purposes of the Association as follows:

OUR NATIONAL BODY; ITS PURPOSES AND DESTINY.

I imagine that when the father of this Association, the Nestor of American medicine, called around him a few devoted friends, accomplished physicians and surgeons, and effected an organization to be known as the American Medical Association, the first thought which filled their minds was the unification of the profession which they loved so dearly. It was their desire, no doubt, to bring together each year the men who were laboring earnestly and honestly for the elevation of the profession, that they in conclave could impart to each other the advance that each succeeding year had brought forth in their chosen calling, and done in order that the sick and afflicted could be profited thereby.

Sacrifices and great personal discomfort were endured by them to obtain the good; but what splendid results were accomplished by their efforts is evidenced in the assembling of this great body here to-day. I opine, too, that anything that partook of the nature of jealousy, unfairness or politics was deprecated by them, but to the contrary, they desired that peace and good will should always obtain. What could be more beautiful than the fruition of this hope? How grand the thought that here in the mother society men of all grades, so far as education and accomplishments are concerned, be they great or small, poor or rich, the rank and file of the profession can meet on common ground and exchange views for the benefit of suffering humanity. Some must be teachers or instructors; others listeners; they each in their way contribute their mite. It may be that some member

from a far-off and sparsely-settled country has heard some truth in the application of which a life may be saved, or in return he can give an experience which may prove of incalculable benefit to his more fortunate brother. Let me impress upon you, then, that no class legislation should be induldged in by this body. Let it not be said of us that we rule without reason, or that we are a set of politicians trying to secure benefit for the few against the many, or for the many against the few, for in no wise are we a legislative body. In lieu of all this, let us receive with open arms all who represent honesty, fair dealing, and entertain an honest desire to elevate the standard of the medical profession and of this Association. Let no wrangling come into our midst, but rather let peace and harmony prevail, with love to one another, as becomes gentlemen."

He raised the question whether it was advisable for the Association to meet in a different place each year, and suggested the national capitol as a suitable permanent home for it. He urged the members to be present on the last day of the meeting, and not to permit clinics, etc., to interfere with their attendance at the sections or general services.

He spoke regretfully of the death of Dr. John B. Hamilton, the former editor of the Journal of the Asssociation, and announced the selection of Dr. Geo. H. Simmons by the Board of Trustees to be his successor. He recommended the appointment of a traveling representative of the Association and the Journal, and that the editor of the Journal be the permanent secretary of the Association.

In the matter of public health he recommended that the Association oppose the anti-vaccination movement, and that it appoint a committee to bring in a report at the next annual meeting on "What is the Best Means of Preventing the Spread of Syphilis?" He also spoke as follows on the subject of

TUBERCULOSIS.

"It behooves this national body of American physicians to take some action, or at least to approve the movement to stamp out, as far as scientific effort can do so, that dread disease that kills one-seventh of the world's population—tuberculosis. A few days ago, May 24-27, there was held a tuberculosis congress in Berlin, international in character. The Liverpool Medical Institution, one of the most important medical societies in England, has recently appointed a com-

mittee of its members "to consider what further steps can be taken for the prevention of tuberculosis, and for the treatment of the disease in the human subject." This committee proposes to consider: first, the nature of pulmonary tuberculosis, its communicability and preventability; second, the provision of sanatoria; third, the more effectual methods of controlling spread of infection, and fourth, the desirability of adopting some form of notification. The eradication of bovine tuberculosis received a powerful stimulus throughout the empire when recently her Majesty the Queen gave orders to have killed such of her herd of Jerseys as were shown by the tuberculosis test to be infected.

At the recent meeting of the French Association for the Advancement of Science, the section of hygiene, at the suggestion of Prof. Nicholas, passed a resolution pointing out that the convection of tuberculosis by inhalation is only one of the modes of infection, and that a larger part of the diffusion of the disease is played by contagion through the alimentary canal, as proved experimentally and clinically, urging the necessity of taking adequate measures to insure the sterilization and harmlessness of articles of food. All Europe is wide awake to the importance of this subject.

From carefully prepared statistics it is found that of the deaths from all causes between the ages of 15 and 60 years, one third of the number are victims of tuberculosis, and that it kills four and a half times as many people as do smallpox, scarlet fever, typhoid fever and diphtheria combined. It is estimated that any given time in Germany alone 1,300,000 persons are affected with tuberculosis, and Osler says that 1,200,000 in America have the disease at all times. One in every fifty persons has the disease. Over 13,000 die of tuberculosis in the State of New York every year. In every other American city the proportion of deaths is equally as great. So important has this subject become that at a recent convention held in England to consider the question, "How to Prevent the Spread of Consumption," the Crown was represented by His Royal Highness, the Prince of Wales, who presided over the meeting. Great encouragement was given the move by royalty and all others. The medical profession all over the world is deeply interested in the subject, the aid by governments solicited, and every effort is being made to suppress this formidable disease. Since the germ which causes it is known, and its habitat, the condition under which it thrives, and that the disease is contagious, it does

appear but rational to assume that it not only can be prevented by precautionary measures, but that it can be cured by proper environment and treatment. It is equally true that, even in the best of homes, the treatment usually accorded the patient is nil in effect and accomplishes nothing. Something more than this must be done if we expect to materially decrease the death rate. What is that something? Detweiler believes that over 24 per cent. of cases of tuberculosis are curable, Meisen, 27 per cent., Braymer, 21.5 per cent., and this under ordinary climatic and hygienic treatment. A much higher percentage of recoveries could be recorded if a real systematic and scientific treatment could be afforded these patients. Such a course can be instituted only in well-ordered and equipped hospitals designed especially for such inmates. In regard to the extent of the disease, I can do no better than to use the words of Professor Hirsch. He says: "It is emphatically a disease of all times, all countries and all races. No climate, no latitude, no occupation, no combination of favoring circumstances forms an infallible safeguard against the onset of tuberculosis; however, such conditions may mitigate its ravages or retard its progress. Like typhoid fever, phthisis dogs the steps of man wherever he may be found, and claims its victims among every age, class and race." In answer to the question, "what is to be done to prevent its progress," I would suggest a remedy in using the words of a resolution adopted at the International Congress of Hygiene in Brussels in 1897: "The hospitalization of tuberculosis is urgent and will not long be withheld." In several large cities in the United States an earnest effort has already been made to carry this thought into practical utilization, especially so in Chicago and New York. It can readily be seen, however, that but a comparatively few out of this great number of afflicted can be accommodated in this manner. A country or State that is ever on the alert to prevent the landing of a foreign foe, or a hostile army, surely should ever be ready to aid in the suppression of a foe to the human race ten times more destructive to human life than the invasion of the country by an army of great size armed with the most improved rifles. Let us, then, in the name of humanity, invoke aid from the government of this very humane people, in order to help put down and thoroughly conquer this foe.

During the last session of the New York Legislature a report of the Senate committee appointed to investigate the

advisability of establishing a State hospital for the cure of consumption was made. Many reasons for the same were presented in the report. Among other things the report read: "Tuberculosis is one of the most fatal diseases that the human race has had to combat at the present day; its yearly victims inflict a serious and unnecessary drain upon the resources of the State; unnecessary because it is now demonstrated beyond question that by the adoption of proper preventive measures a large proportion of those who suffer from this disease may be saved. This is proven not only by the revelations of science, but by the results which have been obtained in the practical application of the means to prevent the spread of the disease. A large proportion of the cases brought under treatment have been cured, and so many have so improved as to be restored to the producing class. It is also shown that the efforts of the boards of health of this and other States, as well as in other countries, have so far succeeded in reducing the percentage of deaths from tuberculosis by the measures adopted that there is good ground for assuming that with wise laws properly enforced this disease may be almost wholly obliterated." Is it too much, then, to suggest that this Association, representing the most advanced thought of the medical profession of America, take action in this important matter? I would most respectfully urge you to appoint a committee to prepare a careful report on this subject and present it to the next Congress sitting, beseeching that this Government erect, prepare or donate hospitals or reservations in and at which the poor or others shall receive treatment for the cure of consumption; also that the advisability of the respective States ereecting similar institutions be impressed upon the various State Boards of Health. The blind, the deaf, the insane, the feeble-minded and other ciasses are so provided for; why not these? They are not able to care for themselves, and they are a menace to the public health. It must be confessed that in so far as the prevention of the disease is concerned, that must come from the education of the people to the facts. The best way to accomplish this I leave to you.

The address was referred to the Executive Committee.

The report of the Treasurer of the Rush Monument Fund was received. It showed $10,082,52 on hand.

The report of the Secretary, Dr. W. B. Atkinson, related the work which had been done in endeavoring to bring State and local societies in close touch with the Association, and

the reception of resolutions from the State societies of Alabama, Tennessee, Texas and Louisiana, opposing summary action in shutting out professors and graduates of schools not at present complying with the requirements of the American Association of Medical Colleges.

The report of the Treasurer, Dr. Henry P. Newman, of Chicago, showed a membership of more than eight thousand, and a cash balance on hand of $18,729.95.

The report of the Executive Committee was presented by Dr. L. Duncan Bulkley, of New York, and was as follows:

REPORT OF EXECUTIVE COMMITTEE.

Dr. L. Duncan Bulkley, of New York, presented this report as follows:

The Executive Committee respectfully reports that with thirty members present they have considered most of the subjects referred to them by the Association, and report as follows:

The resolution offered by the Philadelphia County Medical Society, in regard to the organization of a national department of public health, with a cabinet minister at its head, is recommended for adoption by the Association, with the further recommendation that it be referred to the Committee on Public Health to further formulate and further this project.

The resolutions of the Philadelphia County Medical Society, in regard to the medical corps of the army and navy, is recommended for adoption, with the change that Congress be directly appealed to, and that the President of the Association appoint a committee of twenty-five to memorialize Congress on the subject.

The resolutions, as proposed by the above society, are as follows:

WHEREAS, The morbidity and mortality statistics of the late war served to call to the attention of physicians of the United States the weighty and enlarging problem of the care of soldiers and sailors in peace and during campaigns, under widely varying conditions of climate and environment, now and in many respects presenting themselves for the first time; therefore, be it

Resolved and recommended by the American Medical Association:

1. That the medical corps of the army and navy be enlarged to meet properly all demands that may be made upon them.

2. That transportation of medical supplies be under the control of the medical department.

3. That a corps of sanitary inspectors be created, whose duty it shall be to exame into the sanitary condition of camps and bodies of troops in transit, and advise in relation thereto.

4. That the government establish permanent camp sites, the selection to be subject to the surgeon general, for use in the mobilization of large masses of troops.

5. That a professor of military hygiene be appointed at West Point to instruct the cadets in the principles of sanitation.

6. That the medical officers of the national guard be subjected to rigid examination both for admission to the service and for promotion.

7. That the surgeon-general of the army and navy in time of peace and war be empowered to call into requisition the services of skilled specialists.

8. That the President of the United States be respectfully urged to recommend to Congress the appointment of an army medical commission, to be composed of physicians and sanitarians to be taken from civil and military life, including the surgeons-general of the army and navy, whose duty it shall be to prepare a report containing a detailed plan of a modern system to govern the medical departments of the army and navy in peace and war. Be it furthermore

Reselved, That a committee be appointed by the President of the American Medical Association to wait upon and present these resolutions to the President of the United States for his favorable consideration.

The resolution offered by the Medical Association of Georgia, in regard to raising the rank of the surgeon-general of the army to that of a major-general, is recommended for adoption.

The bill to provide for the employment of women nurses in military hospitals of the army, presented by Dr. Gould, is approved by the Executive Committee. Dr. Gould appeared before the committee and explained its features, and said that it had been endorsed by all the leading physicians and nurses and others, and the committee recommended that the Association endorse the plan.

The communications from Tennessee, Louisiana, Alabama and Texas Medical Associations (see Journal, May 6, p. 1009, May 27, p. 1193), in regard to the action taken by the Asso-

ciation last year, on the motion of Dr. Dudley S. Reynolds, of Louisville, in regard to the limitation of membership to those who conformed to the requirements of the Association of the American Medical Colleges (see Journal, xxxi, p. 83), were fully considered in connection with the resolution referred to. Dr. Reynolds and Dr. Savage, by invitation, appeared before the committee and explained the position of their association. After free discussion it was decided that, in the opinion of the committee, the action taken last year was unconstitutional, and the entire matter was referred to the judicial council for opinion and decision.

Last year the Section on Materia Medica, Pharmacy and Therapeutics introduced a resolution which was referred to the Executive Committee and not reported on. The committee placed the matter in the hands of a sub-committee to investigate the matter during the year and to report at this meeting. The committee now report that they endorse the preamble and resolution, and recommend that a copy of the report be sent to the Decennial Pharmacopeial Convention for 1900.

Dr. Bishop, of Philadelphia, moved to amend that portion of the report referring to the army and navy medical corps, by making the committee consist of one member from each State and territory, and one each from the army, navy and marine hospital service.

The amendment was seconded, accepted and carried, and the recommendation of the committee was adopted.

The address on "Surgery" was delivered by Dr. F. W. McRae, of Atlanta, and the oration on "State Medicine" by Dr. Daniel R. Brower, of Chicago.

Dr. T. J. Happel, of Trenton, Tenn., presented the report of the Board of Trustees containing a statement of the financial status of the Association and of its Journal, and also made the following recommendation:

We offer the following substitute for Dr. Wills' amendment offered last year at Denver, Colo.: Amend Article IV. of the Constitution by substitution for paragraph one and two of said article, the following:

The officers of the Association shall be a president, four vice-presidents, a secretary and an assistant secretary, a treasurer and a librarian. All of them except the secretary shall be nominated by a special committee of one member from each State represented at the meeting, and shall be elected by vote on a general ticket.

Each officer, except the secretary, shall hold office for one year, and until his successor is elected. The editor of the Journal of the American Medical Asssociation shall be the secretary of this Association, and shall serve as such without additional compensation.

We further suggest that the word "permanent" preceding the word "secretary" in other places in article iv., or elsewhere in the constitution or by-laws be stricken out.

We would state that we recommend this action not from any hostile feelings toward our present secretary, but for the reasons already presented, and the following in addition:

If the editor of the Journal is made your secretary, all the papers of the meetings will go at once into his hands, and he becomes responsible for them. As it is, they may not reach the editor's hands for more than a month, as was evidenced by our Denver meeting.

The minutes will be written out in proper form each day, and presented for adoption by the Association, and then for the signature of the President in the presence of the meeting, so that these minutes may be valid. On the adjournment of each annual meeting the minutes will be kept in the Journal office with the other papers of the Association. The Secretary having at each meeting his Journal stenographer with him, the work of keeping the minutes can be accurately done, at no additional cost to the Association from the stenographic reports kept for the Journal.

The editor of the Journal would then become responsible for the correctness both of the report of the meeting and of the minutes, which correctness of the latter would be duly attested by the signature of the President of this Association. Such an arrangement as this would, in our opinion, prevent any charges of omissions from, and inaccuracies of, the minutes of our meetings, a thing which has too often occurred heretofore.

With your secretary in one city and your editor in another, delays in the transmission of matter often occur, and the editor cannot promptly present the proceedings of the meeting to the readers of the Journal. This is evidenced by the fact that the minutes of the Denver meeting are found in the following numbers of the Journal: June 25, July 9 and July 23, when the proceedings should have been published June 11-18.

The officers of the Association for 1899-1900 are:
President, W. W. Keen, Philadelphia.
First Vice-president, Chas. A. Wheaton, St. Paul.
Second Vice-president, E. D. Fergnson, Troy, N. Y.
Third Vice-president, J. M. Allen, Liberty, Mo.
Fourth Vice-president, Wm. D. Middleton, Davenport, Iowa.
Treasurer, Henry P. Newman, Chicago.
Secretary, George H. Simmons, Chicago.
Assistant Secretary, J. A. Joy, Atlantic City, N. J.
Chairman Committee of Arrangements, Philip Marvel, Atlantic City, N. J.
Librarian, Geo. W. Webster, Chicago.
Board of Trustees, E. E. Montgomery, H. L. E. Johnson and C. A. L. Reed, re-elected.

JUDICIAL COUNCIL.

J. D. Griffith, Kansas City, Mo.
P. H. Bailhache, marine hospital service.
J. E. Cook, Cleveland, Ohio.
J. P. Lewis, Topeka, Kans.
F. H. Wiggin, New York City.
J. W. Irwin, Louisville, Ky.
Walter Wyman, Washington, D. C.

ANNUAL ORATIONS.

On Medicine—John A. Witherspoon, Nashville, Tenn.
On Surgery—W. L. Rodman, Philadelphia, Pa.
On State Medicine—Victor C. Vaughan, Ann Arbor, Mich.

SECTION OFFICERS.

SURGERY AND ANATOMY.

Chairman—H. O. Walker, Detroit, Mich.
Secretary—Ramon Guiteras, New York City.

PHYSIOLOGY AND DIETETICS.

Chairman—Elmer Lee, New York City.
Secretary—R. Harvey Cook, Oxford, Ohio.

PRACTICE OF MEDICINE.

Chairman—Geo. Dock, Ann Arbor, Mich.
Secretary—Dr. Futcher, Baltimore, Md.

OBSTETRICS AND DISEASES OF WOMEN.

Chairman—W. E. B. Davis, Birmingham, Ala.
Secretary—F. F. Lawrence, Columbus, Ohio.

DISEASES OF CHILDREN.

Chairman—Edwin Rosenthal, Philadelphia.
Secretary—Lewis Fischer, New York City.

MATERIA MEDICA, PHARMACY AND THERAPEUTICS.

Chairman—Leon L. Solomon, Louisville, Ky.
Secretary—J. W. Wainwright, New York City.

LARYNGOLOGY AND OTOLOGY.

Chairman—Christian R. Holmes, Cincinnati.
Secretary—J. A. Stucky, Lexington, Ky.

NEUROLOGY AND MEDICAL JURISPRUDENCE.

Chairman—Hugh T. Patrick, Chicago.
Secretary—F. S. Pearce, Philadelphia.

OPHTHALMOLOGY.

Chairman—H. V. Wurdemann, Milwaukee, Wis.
Secretary—C. F. Clark, Columbus, Ohio.

AMERICAN PROCTOLOGIC SOCIETY.

ABSTRAACT OF PAPERS DELIVERED AT THE FIRST MEETING HELD AT COLUMBUS, O., JUNE 6 AND 7, 1899.

The President, Dr. Joseph M. Mathews, of Louisville, Ky., delivered an interesting address setting forth the importance of giving rectal diseases special study.

He said: "It is a notorious fact that there is more quackery practiced in the diseases of the rectum than in any other department of medical practice. This state of things is to be deplored. After an experience of twenty years in this work, I wish to say that these important and most serious affections should be entitled to a separate and special consideration; and who will dare to say that those who practice them are not entitled to the privilege of forming themselves into a society. Nothing will contribute more to the advancement and to the elevation of this long neglected subject than this contemplated organization.

The principal part of our knowlege must ever come from comparing our own observations with those of others; then how apparent to all must be the utility which the Society of Proctologists will afford in opportunities for the mutual communication of thought and action."

Dr. Tuttle read a paper in which he stated that the term Pruritus Ani has for the scientific physician only a vague significance, but for its victims it is portentous with evil. He stated, after enumerating many of the characteristic symptoms, that it shonld be dealt with, first constitutionally, second locally.

He said that he was not a believer in pruritus ani essentialis. The constitutional condition upon which the theory of this disease is founded he admits, and reckons it an important element; but insisted that there is always an exciting cause for the disturbance and upon this cause will depend the physical appearance of the parts, and that we know full well the diseases which cause these physical changes in the parts, and these diseases occurring in the dysaesthesic patient instead of causing pain produce itching until the irritation and scratching of the parts produce pain.

Among the causes enumerated, he mentioned oxyuris vermicularis, colitis, sigmoiditis, catarrhal diseases of the rectum and uricaemia. These pathological conditions are the ones which he has found most often in obstinate and obscure cases. To the scientific physician all treatment must be based upon his conception of the pathology of the case; remove the pathological cause, treat the disease and not the symptom. Nitrogenous diet, alkaline diuretics, salicylic compounds and hot baths compose the general routine of treatment. Local applications of carbolic solutions, larkspur, black wash, salicylic acid, chloral hydrate, extract conii, camphor, cocaine, tar, etc., may all be used in one form or another.

Having determined the variety and type of the disease producing pruritus, it is not difficult to manage, and in most cases we may confidently expect a radical cure.

Dr. Earle, of Baltimore, read an interesting paper upon "A Modification of Whitehead's Operation for Hemorrhoids."

After reviewing usual methods of operations for removal of hemorrhoids, he described his own method, which consists of

clamping the tumors by sections, beginning at an incision in the fourchette where primary incision was made to determine the depth at which to place the clamp. After removing the tissue above the clamp by piecemeal, a continuous suture, beginning at the primary incision, was inserted around the clamp. When the first section has been cut away and sutured, the clamp is removed and the suture drawn taut, and the clamp again put in position until the whole anal circuit has been treated.

He stated that he had given this method a thorough trial, and unhesitatingly said it was the safest, easiest, and by far the best method that he had ever tried. The operation is practically bloodless, and healing by first intention is secured. The convalescence is complete at the end of the week.

Dr. Earle demonstrated his method of operating at St. Anthony's Hospital.

Dr. Thomas Charles Martin, of Cleveland, discussed in a very interesting manner, "The Act of Defecation."

He said that a knowledge of the anatomy of the rectum was necessary to form an appreciation of the physiology of defecation.

The bundles of circular fibers which constitute the muscular element of the rectal valve belong to the same mechanism and have the same function as those which form the internal sphincter.

It is the function of the normal rectal valve to beneficently retard the descent of the feces, and it is obviously true that it may be the especial property of the valve in certain other than normal conditions to maliciously obstruct the descent of the feces.

His experience convinced him that a perfect knowledge of the rectal valve constitues the key to an understanding of obstipation, rectal stricture and their sequelae.

Dr. A. B. Cooke, Nashville, read an exhaustive paper on the subject, "Constipation Considered from the Standpoint of the Proctologist." He defined constipation as a diseased condition of the alimentary canal characterized by a modification of function which results in the pathological retention of fecal matter. He stated among the causes: First, those springing from the violation of hygienic law; second, defective innervation, expressed either in atonicity of the muscular coats of the intestine or in decreased secretion; third,

diseased or debilitated states of the general health; fourth, the habitual use of purgative medicines; fifth, mechanical obstruction; sixth, painful affections of the anus.

The relations between constipation and diseases of the rectum are intimate and noteworthy in that either may be cause, effect, or both, with reference to the other.

Rectal reflexes came in for a share of consideration. In conclusion he stated as his conviction that in a large proportion of bases constipation either originates in or is maintained by causes located in the distal ten inches of the intestinal tract. If this be true, the notorious inadequacy of ordinary treatment is at once accounted for, and the duty of the proctologist in the premises becomes obvious.

Dr. William M. Beach, Pittsburg, presented the subject of "Rectal Adenomata." He defined an adenoma as an hypertrophy of gland texture. He noted briefly the nature of these growths and the value of the proctoscope in their early diagnosis and treatment. He said there are two principal types of adenomata: 1. The gelatinous, composed of elements of mucous membrane. 2. The mixed variety, consisting of mucosa and submucous cellular tissue. The adenoma with a long pedicle is benign, while growths with a broad base tend to malignity.

After discussing symptoms and complications, he said by means of the methods of examining the rectum it is well nigh impossible to locate these growths of the upper rectum; that the newer proctology substitutes exact methods in diagnosis and treatment of non-malignant adenomata that are most gratifying to both the patient and surgeon. In conclusion he said that the rectal adenoma may be hard or soft and contains the constituent elements of the mucosa and submucosa. 2. That these growths are benign and malignant. 3. That, benign in their origin, they may become malignant. 4. That early recognition is of first importance, which is made possible by the newer methods of inspection.

Dr. J. R. Pennington, of Chicago, discussed the Post-Operative Treatment of Hemorrhoids. He stated that the success of a rectal operation depends quite as much upon the after treatment as upon the operation itself. He uses a tampon made by taking a piece of five-eighth inch rubber tubing, about four and one-half inches long, and wrapping it with sterilized gauze until as large as desired, then covers this tent

with a special rubber covering. Before introducing the tampon he blows nosophen powder over the field of operation. It is introduced through a bivalve speculum.

Among the advantages claimed for the rubber covered over gauze dressings, are: 1. It is neater. 2. Its removal is painless, as the granulations cannot and do not penetrate or adhere to the rubber covering as they do to the gauze or wool dressings. 3. The tender granulation sprouts are not broken off durir g its removal; hence there is little or no hemorrhage, which leaves the wound better fortified against septic infection and the healing process is greatly enhanced. 4. There is practically no pain during defecation, a point which seems to us, who have seen patients suffer almost unto syncope during the first movement of the bowels, after the removal of ganze dressings of very great importance.

The following papers were read by title:

Surgical Treatment of Non-Malignant Stricture of the Rectum—Joseph B. Bacon, Chicago.

The Proctoscope as a Factor in the Diagnosis and Treatment of Simple Ulceration of the Rectum—Leon Straus, St. Louis.

A Consideration of the Various Forms of Ulceration of the Rectum—Lewis H. Adler, Jr., Philadelphia.

Rectal Carcinoma, Excision and Subsequent Colotomy—B. Merrill Ricketts, Cincinnati.

AMERICAN PROCTOLOGIC SOCIETY.

A new medical society to be known as the American Proctologic Society was organized by prominent rectal specialists, at Columbus, Ohio, during the recent meeting of the American Medical Association. Its object is to give special study to diseases of the rectum and colon. The following officers were elected:

President, Dr. J. M. Matthews, Louisville, Ky., the retiring president of the of the American Medical Association.

Vice-President, Dr. J. P. Tuttle, New York, N. Y.

Secretary-Treasurer, Dr. William M. Beach, Pittsburg, Pa.

Board of Counsellors, Dr. S. T. Earle, Baltimore, Md.; Dr. A. B. Cooke, Nashville, Tenn.; and Dr. J. R. Pennington, Chicago, Ill.

The Charter Members are Drs. J. M. Mathews, Louisville,

Ky.; J. P. Tuttle, New York City; J. B. Bacon, Chicago, Ill.; S. T. Earle, Baltimore, Md.; Leon Straus, St. Louis, Mo.; Lewis H. Adler, Jr., Philadelphia, Pa.; B. Merrill Ricketts, Cincinnati, O.; C. C. Allison, Omaha, Neb.; Thomas Charles Martin, Cleveland, O.; A. B. Cooke, Nashville, Tenn.; S. G Gant, Kansas City, Mo.; W. M. Beach, Pittsburg, Pa.; G. B. Evans, Dayton, O.; J. R. Pennington, Chicago, Ill.; and Geo. J. Cook, Indianapolis, Ind.

A number of very interesting and instructive papers were read and discussed. Much interest was manifested in the Association. The annual meeting will be held in Washington, D. C., May, 1900.

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THE

MEDICAL AND SURGICAL BULLETIN,

NASHVILLE, TENN., JULY, 1899.

INJURIES OF THE PELVIC FLOOR AND THEIR CONSEQUENCES.*

BY M. C. McGANNON, M.D., C.M.,

PROFESSOR OF DISEASES OF WOMEN AND ABDOMINAL SURGERY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

Much confusion exists even among our best writers about the formation and functions of the pelvic floor.

Burnitz and Goupil, as far back as 1866, spoke of laceration of the perineum as a cause of "prolapsus uteri."

Dr. Thomas, in the edition of his book published in 1880, gives Savage's description of the perineum as "a triangular wedge composed of fascial and areolar tissue which fills the space between the backward curve of the rectum and the forward curve of the vagina." He adds that this body is supported below by a plane of muscles. He ascribes to it the following functions: 1. It sustains the anterior wall of the rectum. 2. It supports the posterior wall of the vagina. 3. The anterior vaginal wall and bladder, resting upon the posterior vaginal wall, and the uterus resting upon these, are all sustained, in a great degree, by the perineal body. Dr. Thomas' later works do not hold to this view of the value of the perineum, but attributes to the muscles and fascia the powers they possess and the functions they perform in supporting the adjacent structures.

Dr. Thomas Addis Emmet, in 1880, placed great stress upon the importance of the pelvic floor as a support to the pelvic organs. His later editions deal more fully with the subject. He eulogizes Dr. Thomas' description of the pelvic

*Read before the Southern Kentucky Medical Association.

floor and its functions. He, however, attributes little importance to the perineal body. He believes the support is in the fascia, muscles and connective tissues, forming a barrier to the pelvic outlet, and thereby supporting the pelvic organs.

Dr. Mann, in Keating and Goe's Clinical Gynæcology, 1896, says: "That portion of the pelvic floor between the anus and the vagina, commonly called the perineum, is the centre in which a number of muscles are united, and in which the fasciæ have their supporting point, and while it is in no sense the keystone to the arch, it is, nevertheless, the most important point in the pelvic floor." All of these descriptions of the pelvic floor have much of value in them, but each ascribes to this structure a very limited function.

I invite your attention to a broader and more comprehensive view of the pelvic floor, one that carries us beyond the pelvic boundaries and takes us to the abdominal cavity, of which the pelvis is only a part; one that will better enable us to understand the importance of the pelvic floor and that will at the same time bring into harmony all the studied observations of the different writers upon this subject.

The pelvic floor is no more and no less than a part of the walls surrounding and closing in the abdominal cavity. This great receptacle for the most important viscera of the body is bounded above by the diaphragm, behind by the spinal column, with the muscles and fascia thereto attached; on the side and front by broad and strong layers of fasciæ and muscles that arise from bony points above, below, and at the sides, and that unite in a median raphe, called the linea alba; and below by equally strong layers of fascia and muscles that are attached, anteriorly, posteriorly and laterally, to the bones and centrally united in a median raphe. On close inspection we find the pelvic floor is much like the anterior abdominal wall both in arrangement and in action. The pelvic fascia corresponds to the transversalis fascia both in its bony attachments and in being placed next the peritoneum. The sphincter ani and bulbo cavernosus reaching from the coccyx to the pubic bones, to each of which they are attached, correspond to the recti abdominales. The levatores ani arising on either side from the body and ramus of the pubes, from the spine of the ischium and from the under side of the pelvic fascia, pass down to within the median line of the floor of the pelvis. Its fibres are inserted into the sides and apex of the coccyx. They blend with the sphincter ani and transversus perinæi; they are inserted into the side of the rectum and

vagina, and they unite with each other in front of the rectum. These muscles resemble very much the abdominal oblique muscles in their origin and insertion and their action. The muscles forming the pelvic floor act in unison, unless individually stimulated, and so do those of the anterior abdominal wall.

The pelvic floor is weakened by the vaginal opening, and by the outlet from the bowel, just as the anterior abdominal wall loses strength, because of the inguinal canals and the femoral rings. In both these walls, the pelvic floor and the anterior abdominal, at the weak points, the muscles are so arranged that they protect and strengthen these vulnerable places. Though nature has done much toward guarding these openings, yet they are, unfortunately, sources of great suffering to members of the human family.

The mass of muscles and fascia forming the pelvic floor locally support the pelvic viscera, hold in place the rectum, uterus and bladder, aid in defecation, urination and parturition, and do much to keep the pelvic veins empty. The local function is usually the only one ascribed to the pelvic floor, but it has a much greater and broader one to perform. Upon it, as a part of the abdominal walls, depends the existence in a normal state of the force known as "intra-abdominal pressure," and upon this force, plus the fixing power of their ligaments, the abdominal organs depend to keep them in their proper places.

All of the abdominal viscera, except the uterus, and even it to a great extent, are bound in their positions by an elastic, readily stretchable membrane—the peritoneum. It forms the ligaments of the liver, the attachments of the stomach and spleen, the mesentery of the intestines, the coverings of the kidneys and rectum, the broad ligaments of the uterus, and the attachments of the bladder. That this membrane possesses but slight fixing force is shown by the contents of hernial sacs, by the existence of loose kidneys, displaced spleens and livers, fallen stomachs, and prolapsed pelvic organs. The peritoneum, when aided by normal abdominal walls that can always exert a sufficiency of pressure upon the abdominal viscera, amply serves to fix these structures in their proper places, but any relaxation of the abdominal walls will sooner or later be followed by the displacement, in some degree, of the abdominal organs. Careful post-mortem examination of the kidneys, spleen and liver will convince any observer of the existence of this force known as intra-

abdominal pressure, and of its value in keeping in place the organs found inside the abdomen. Though these structures are more or less firm, yet elevations and depressions can be seen upon them, marking the points where adjacent organs have been pressed against them.

General relaxation, such as at times follows childbirth, or even injury to the anterior abdominal wall or the pelvic floor, will allow of a general ptosis of the organs inside the abdominal cavity, but a local weakness, such as results from a small hernia or a slight laceration of the pelvic floor, allows at first of a local effect only, hence the adjacent structures alone may feel the result of the injury.

Injuries of the pelvic floor—lacerations of the perineum so called—vary much in degree and in the tissues involved. They are usually divided, clinically, into complete and incomplete. A laceration is said to be complete when it involves the sphincter ani muscle, and to be incomplete when that muscle still remains intact.

Another clinical division into first, second, third and fourth degrees of injury attempts to express the extent of the tear. Injuries of the first and second degrees do not involve the sphincter ani, while the third degree passes through the muscle, and in the fourth degree the bowel is more or less torn. These clinical divisions are of some value for teaching purposes, and do express, to some extent, the amount of destruction to the soft parts; but they convey little, if any, idea about the amount of injury the pelvic floor has sustained. A tear may involve the perineal body, go through the sphincter ani muscle, involve a part of the bowel wall, and yet damage to a small extent only the supporting power of the pelvic floor, while, on the other hand, a laceration that does not at all involve the skin, and but slightly the mucous membrane, may so injure the muscles that their power will be practically gone. Injury to the pelvic floor occurs, as a rule, at the time of childbirth; hence all the text-books detail as the etiological factors in the production of this injury the untoward results of this act. Too large a fœtal head, a too straight sacrum, a rigid perineum, too early use of forceps, faulty use of instruments, etc., make up the list. Now these are all factors, and forcible factors, but the prime and chief cause of injuries to the pelvic floor dates back and beyond the period of conception of the child, whose head, disproportioned to the strength of the outlet through which it must pass, bursts a way for itself and leaves its indelible trail behind. Weak-

ness of muscle should occupy the first place in the list of causes of injury to the pelvic floor. The suffering is the penalty women must pay for the worship of that false god, Fashion, and for their indolence and neglect of proper exercise. Too often the abdominal walls are encased in an immobilizing jacket, and atrophy is the result. Want of proper exercise causes the muscles of the pelvic floor to remain in an undeveloped condition, hence they are unable to respond to the demands made upon them at a time of childbirth. Following parturition, the weak and atrophied anterior abdominal walls regain their tone, but slowly, and as a consequence, at the expiration of the stereotyped nine days, when the mother gets upon her feet, normal intra-abdominal pressure is not maintained. The abdominal viscera sag and stretch their moorings, function is impaired, and the woman complains of weight in the pelvis, indigestion, headache, pains in the back, lassitude, and numerous other ills that she can find no words to describe.

Let us contrast this modern civilized mother, the product of higher education, fashion and idleness, with her sister whose environment is not so luxurious, whose muscles are free as nature made them, and whose life is one of toil. The native Indian woman of this country gives birth to her children without trouble, suffers no injury to the pelvic floor, requires no binder to support the anterior abdominal muscles, and gets upon her feet in a few hours. The women of India suffer no more than the native women of our own country. The negro women, with whom you are all familiar, and more especially those born in slavery times, practically never suffer from injuries to the pelvic floor. I have been much impressed by this fact. As a result of parturition, most of them have some laceration of the perineal body and fourchette, but the lower boundary of the abdominal cavity—the pelvic floor—remains firm and performs its functions perfectly. In these women the anterior abdominal walls after delivery contract firmly, and no binder is necessary to give them support. They remain in bed but a few days at most, and are not seemingly injured by at once returning to their usual labors. The younger negro women, those who have copied the habits and follies of their mistresses, and whose muscles as a result lack strength and tone, oftener suffer from injury to the pelvic floor than do their sisters born in slavery time.

There are some authors, even to-day, who lay but small stress upon the injuries of the pelvic floor. They have been

carried to this extreme position because of their inability to subscribe to the erroneous teaching, so prevalent a few years ago, that all pelvic ills were due to a laceration of the perineal body. It seems to me that any logical thinker who possesses a knowledge of the anatomy of the abdominal cavity, its boundary walls, its contained viscera, and who will take the time to investigate this subject, must realize the importance of the pelvic floor and the grave results that will follow serious injuries to it. It can be put down as an absolute rule that all injuries impairing the functions of the pelvic floor will be sooner or later followed by prolapsus of the pelvic organs, if not by ptosis of other abdominal viscera. The exceptions to this rule are, first, when adhesive inflammation fixes the organs so that prolapsus cannot take place; second, when the subject of injury leads such a life that no strain is put upon the abdominal muscles. When the femoral or inguinal rings allow the abdominal viscera to escape, there is no protrusion while the sufferer is on the back. Neither do the pelvic organs come through a dilated vagina when the patient is in a recumbent posture. When prolapsus of the pelvic organs does occur, it is in the form of a hernia as much as is that when the femoral ring allows the contents of the upper abdomen to escape through it.

Before prolapsus of any organ can occur its ligaments, true and false, must stretch. Its false ones, made up of peritoneum, do so easily, while the true ligaments, composed of muscle and fibrous tissue, give way more slowly and with difficulty. These structures, once having given way, seldom, if ever, regain their tone and become normal. A knowledge of this fact should forciby impress upon us our duty in all cases of injury to the pelvic floor, no matter how slight. It is before the results of this injury, viz., prolapse of the rectal and vesical walls, displacement of tubes, ovaries and uterus, ptosis of pelvic and upper abdominal viscera, and a whole host of reflex symptoms occur, that we can hope for most good from treatment.

Now, what is that treatment? There is but one. Repair the injured part. Put the divided muscles together again as they were at first. The obstetrician's duty is imperative. It is criminal to neglect it. He should repair at once all such injuries occurring in his practice when possible. It is equally the duty of the physician and surgeon to impress upon women suffering from this injury the necessity of having it attended to. They should be made fully acquainted with

the fact that sooner or later they must pay the penalty of their neglect. Hernia at the inguinal or femoral ring should not be neglected by any physician. Then why put this one aside? There is no valid excuse save that a fatal strangulation does not threaten. In repairing this injury the divided structures should be again united, so that they will perform their functions normally. Unless this is done the operation will be of no value. To do this an intimate knowledge of the muscles and fascia forming the pelvic floor, their directions, relations and functions is absolutely necessary. The skin and perineal body are elastic, and do not give support; hence nice coaptation of these structure, though it gives a beautiful cosmetic effect, is absolutely valueless. We must not delude ourselves with the idea that this is an easy operation. I know of none more difficult to perform well, nor do I know of any other so often done badly. No one type of operation will answer for all cases. Since hardly any two of these injuries are exactly the same, each is a law unto itself. The operation devised by Dr. Thos. Addis Emmet will be found suitable to most cases, and can be made to answer all. A thorough study of his work upon this operation I would urge upon all men of the profession, and those who are so fortunate as to have the opportunity of seeing him perform it should not miss the chance. I have seen the operation done by most of the prominent surgeons of the country, and have assisted many of them to do it, amongst the number, Dr. Emmet, and I believe I do no one an injustice when I say his peer in this work does not now live.

ABSTRACTS.

THE WHITEHEAD OPERATION FOR PILES.

For a long time past I have had many patients each year who came to be treated for permanent stricture, incurable ulceration and unbearable pruritus as a result of non-union following Whitehead's and the "American" operations. The latter is simply a modification of the former, and should bear Mr. Whitehead's name.

The advantages claimed for it are as follows:

1. That it is the most natural method and is in perfect harmony with surgery.

2. Excision (in addition to its simplicity) requires no instrument not found in an ordinary pocket case.

3. It is a radical cure, and removes the peculiar pile-bearing area.

4. It is not more dangerous than other methods recommended for the removal of piles.

5. Pain is less severe than that following any other operation.

6. The loss of blood during the operation probably exceeds that of the ligature or clamp and cautery, but dangers of secondary hemorrhage are unquestionably less.

I offer in notation, the following criticisms to the above claims:

1. Excision is not more natural, neither is it more in harmony with surgery than are other operations.

2. Instead of being simple, it requires longer time, greater ingenuity and the best instruments.

4. Granting it is radical, just as good results can be obtained quicker with less pain, fewer complications, and by less difficult operations.

4. It is equally dangerous, if not more dangerous, than the clamp and cautery or ligature; and is certainly more often accompanied by complications.

5. Bleeding is often profuse during the operation, and secondary hemorrhage is not lessened by it.

Excision is the operation par excellence when the lower two or three inches of the circumference of the bowel is made up of spongy angiomatous masses, accompanied by profuse

bleeding. Here nothing short of the amputation of the involved area will give permanent relief.

On the other hand, because of the complications that accompany and the sequealae following the operation, it should be discarded for the treatment of ordinary individual pile-tumors. Failure to get primary union is the principal difficulty, because of infection, tension on the sutures and the straining after anesthesia. When a good result has been obtained patients are able to get about in twelve to twenty days. When non-union occurs the membrane retracts, leaving the sub-mucous tissues uncovered for an inch or more. Ulceration, stricture, and pruritus follow in rotation, and the patient is left a permanent invalid and little can be done to alleviate his suffering.

Mr. Whitehead claims that once the pile-bearing area has been removed, patients are exempt from piles thereafter. I have recently seen a man suffering from several large hemorrhoids who had been subjected to this operation several years ago. This demonstrates that the excision method is not more radical than either the clamp and cautery or ligature: In conclusion I will briefly enumerate my objections to this operation.

1. It is not suited for ordinary or bad cases of piles.
2. It is difficult and bloody.
3. Patients are detained in bed from six to fifteen days longer than after the clamp and cautery or ligature operations.
4. Owing to tension, the post-operative pains are severe and may continue for several days.
5. Infection is frequent and terminates in a stitch or deep abscess and fistula.
6. Because of non-union ulceration, stricture and pruritus are common sequelae.
7. The portion of bowel between the anus and the end of the retracted intestine loses its sensitiveness and there is also an absence of the normal secretions.
8. The nervous and mental state of these sufferers is pitiable to behold; many contract the morphine habit, while others "turn up" as chronic invalids in some sanitarium or asylum.—Dr. S. G. Gant in Am. Jour. of Surg. and Gynecol.

TWIN PREGNANCY AND ECLAMPSIA.

As regards the proportion of twin pregnancy to simple

pregnancy, for France, at least, it is 1 twin pregnancy to 97 simple pregnancies.

Now, what is the frequency of eclampsia in pregnancy generally considered? One case in every 350 normal labors, as has been pointed out by Charpentier and Ribemont Dessaignes is about correct.

In the next series of statistics we will endeavor to show what is the proportion of twin pregnancies in a given number of cases of eclampsia, and secondly, what the proportion of twin pregnancies complicated with eclampsia is, which occur in a given number of twin pregnancies.

	Eclampsia.	Twin pregnancies.
Goldberg	81 cases	4 cases
Paupertot	288 cases	24 cases
Olshausen	200 cases	16 cases
Mauriceau, Lachapelle	86 cases	6 cases
Tarnier	88 cases	5 cases
Azais	41 cases	2 cases
Pinard	14 cases	1 case
	798 cases	58 cases

We have here 798 cases of eclampsia, 58 of the patients having a twin pregnancy, or a means of one twin pregnancy in every fourteen labors complicated by eclampsia. This is a proportion which greatly extends beyond the means of pregnancies of this kind, since we pointed out that there is only one twin pregnancy in every 97 normal pregnancies.

Now let us record the statistics demonstrating the frequency of eclampsia by comparing twin pregnancies complicated with eclampsia with a certain number of twin pregnancies not presenting this complication.

	Twin pregnancies.	Cases of eclampsia.
Merriam	48	2
Chailly	13	2
Braun	94	1
Wieger	379	29
Laugier	41	2
Gautrelet	30	3
	605	39

In 605 twin pregnancies 39 cases of eclampsia occurred; in other words a means of one twin pregnancy complicated with eclampsia out of 15.5 cases of twin pregnancy. This statistic clearly shows what we wish to demonstrate, namely, the very great frequency of eclampsia in twin pregnancy. In point of fact, while only one case of eclampsia is met with

in every 350 simple pregnancies, this complication occurs once out of every fifteen cases of twin pregnancy.

These statistics may be briefly summed up as follows: One case of eclampsia in every 350 simple pregnancies; one case of eclampsia in every 15 cases of twin pregnancies. These figures are eloquent in themselves and establish in a very irrefutable manner the importance of twin pregnancy as an etiological factor of this terrible complication of labor.—Annals of Gynec. and Pediatry.

ALCOHOL IN PATENT MEDICINES.

[REPORT TO MASSACHUSETTS BOARD OF HEALTH.]

I have examined the following list of fifty samples of proprietary preparations, tonics and bitters, with special reference to the relation which the percentage of alcohol, which they were found upon assay, to contain might bear to the admission of the presence of any claims for the absence of all alcohol, as given upon their labels and wrappers. I have also noted the doses and frequency with which they are recommended to be used, as well as the place of their origin. The alcohol found upon assay is given in per cent. by volume. How far the claim of some of them for special usefulness in the reformation of intemperate habits is justified is self evident.

TONICS.

Dr. Buckland's Scotch Oats Essence, New York City: "Enough alcohol is added to disolve resins and prevent fermentation." "Not a temporary and fleeting stimulant, but a permanent tonic. Its use must be regular and continued over a considerable period. An extract of double and triple strength also made. Dose, 10 to 15 drops to a teaspoonful three or four times daily, increased as needed." In the simple essence 35 per cent. of alcahol was found on assay. Further examinations of this article reveals a still more dangerous ingredient in its composition. The sample analyzed was found to contain one-fourth grain of morphia to the ounce of the so-called "Essence of Oats." A more insidious and dangerous fraud can scarcely be imagined, especially when administered, as this is recommended, for the cure of inebriety or the opium habit.

Carter's Physical Extract, Georgetown, Mass. Dose, one tablespoonful three times daily; 22 per cent. of alcohol found.

Hooker's Wigwam Tonic, Haverhill, Mass. One tablespoonful three times daily; 20.7 per cent. of alcohol.

Hoofland's German Tonic, Philadelphia. Admits Santa Cruz rum. Wineglass four times daily; 29.3 per cent.

Hop Tonic, Grand Rapids, Mich. One tablespoonful to wineglassful three times a day; 7 per cent.

Howe's Arabian Tonic, New York. "Not a rum drink." Tablespoonful to wineglass four times daily; 13.2 per cent.

Jackson's Golden Seal Tonic, Boston. Admits Marsala wine. Half wineglass three times daily; 19.6 per cent.

Liebig Company's Cocoa Beef Tonic, New York. "With sherry." Two to four teaspoonfuls three times daily; 23.2 per cent.

Mensman's Peptonized Beef Tonic, New York. "Contains spirit." One to three tablespoonfuls three times daily; 16.5 per cent.

Parker's Tonic, New York. "A purely vegetable extract." "Stimulus to the body without intoxicating." "Inebriates struggling to reform will find its tonic and sustaining influence on the nervous system a great help to their efforts." Dose as tonic, one to two teaspoonfuls one to three times daily; 41.6 per cent.

Schenck's Sea-Weed Tonic; Philadelphia. "Distilled from sea weed after the same manner as Jamaica spirits is from sugar cane. It is therefore entirely harmless and free from the injurious properties of corn and rye whisky." Dose, half wineglass three times daily; 19.5 per cent.

BITTERS.

Atwood's Quinine Tonic Bitters, Boston. Dose, half tablespoonful to half wineglass, mixed with water, wine or spirits, three times daily; 29.2 per cent.

L. F. Atwood's Jaundice Bitters, Portland, Me. Half tablespoonful to half wineglass one to six times daily; 22.3 per cent.

Moses Atwood's Jaundice Bitters, New York. Half tablespoonful to wineglass one to six times daily; 17.1 per cent.

H. Baxter's Mandrake Bitters, Burlington, Vt. One to two tablespoonfuls; 16.5 per cent.

Boker's Stomach Bitters' New York. Dose not given; 51.6 per cent.

Brown's Iron Bitters, Baltimore, Md. "Perfectly harmless." "Not a substitute for whisky." Tablespoonful; 19.7 per cent.

Burdock Blood Bitters, Buffalo, N. Y. Teaspoonful to tablespoonful three times daily; 25.2 per cent.

Carter's Scotch Bitters, Georgetown, Mass. Tablespoonful to wineglass, as occasion requires; 17.6 per cent.

Colton's Bitters, Westfield, Mass. Teaspoonful to two tablespoonfuls three times daily; 27.1 per cent.

Copp's White Mountain Bitters, Manchester, N. Y. "Not an alcoholic beverage." Wineglassful; 6 per cent.

Drake's Plantation Bitters, New York. "Contains St. Croix rum." Wineglass three times daily; 33.2 per cent.

Flint's Quaker Bitters, Boston. Teaspoonful six times daily; 21.4 per cent.

Goodhue's Bitters, Salem, Mass. Half wineglassful; 16.1 per cent.

Hartshorn's Bitters, Boston. Tablespoon to half wineglassful; 22.2 per cent.

Hoofland's German Bitters, Philadelphia. "Entirely vegetable and free from alcoholic stimulant." Tablespoonful four times daily; 25.6 per cent.

Hop Bitters, Rochester, N. Y. One to three tablespoonfuls three times daily; 12 per cent.

Hostetter's Stomach Bitters, Pittsburg, Pa. Wineglassful three times daily; 44.3 per cent.

Kaufman's Sulfur Bitters, Boston. "Contains no alcohol." Tea to tablespoonful. It contains no sulphur. but has 20.5 per cent. of alcohol.

Kingsley's Iron Tonic, Northampton, Mass. One to two teaspoonfuls three times daily; 14.9 per cent.

Langley's Bitters, Boston. Half wineglass or more three times daily; 18.1 per cent.

Liverpool's Mexican Tonic Bitters, Boston. Half to full wineglassful three times daily; 22.4 per cent.

Oxygenated Bitters, New York. Tea to tablespoonful. Acid but no alcohol.

Pierce's Indian Restoration Bitters, Boston. Up to wineglassful and to six times daily; 6.1 per cent.

Z. Poter's Stomach Bitters, New York. Tablespoonful or more, several times daily; 27.9 per cent.

Rush's Bitters, New York. Wineglassful four times daily; 35 per cent.

Dr. Richardson's Concentrated Sherry Wine Bitters, Wakefield, Mass. Tablespoonful to half wineglass or more three times daily, "or when there is a sensation of weakness or uneasiness at the stomach;" 47.5 per cent.

Secor's Cinchona Bitters, Providence, R. I. Half wineglassful three times daily; 13.1 per cent.

Job Sweet's Strengthening Bitters, New Bedford. Tablespoonful to wineglassful three times daily; 29 per cent.

Thruston's Old Continental Bitters, Lynn, Mass. Tea to two tablespoonfuls; 11.4 per cent.

Shonya's German Bitters, Concord, N. H. Tablespoonful to wineglassful; 21.5 per cent.

Walker's Vinegar Bitters, New York. "Free from all alcoholic stimulant. Contains no spirits." Half to full wineglass; 6.1 per cent.

Warner's Safe Tonic Bitter, Rochester, N. Y. Table to wineglassful; 35.7 per cent.

Warren's Bilious Bitters, Boston. Teaspoon to two tablespoonfuls, one to three times daily; 21.5 per cent.

Wheeler's Tonic Sherry Wine Bitters, Boston. Two-thirds wineglass two times daily; 18.1 per cent.—North Am. Med. Review, May, '99.

INFANT FEEDING.

A. W. Kratzsch, M.D., in Pediatrics, says:

When the mother has sufficiently rested from the hardships and fatigue of labor her infant should be applied to the breast. This will be from four to six hours after labor, and, as a rule, the breasts contain a small amount of milk, enough to satisfy the child at this time. If the infant shows signs of thirst or is quite uneasy, it may be given a little water, a little milk and water (one part of milk to six of water), or if very noisy, a little good brandy very largely diluted with water.

The stomach of a new-born child holds but little, and therefore, it should nurse every one and one-half to two hours during the day time and every three to four hours during the night.

As the child grows older this interval between feeding should be lengthened, so that, at the age of six months, nursing will take place about every four hours, and small quantities of artificial food given several times a day. The time devoted to each nursing should not exceed twenty minutes and should be followed by a thorough washing of the nipples. There is no fixed age at which infants should be weaned.

The appearance of the canine teeth at about the fifteenth

to the twentieth month is an indication of the child's ability to masticate soft food, and weaning may be begun. Weaning should not be done abruptly so as to force a sudden change of diet upon the child. It is advisable to defer weaning until after the summer months, especially in cities, because of the child's predisposition to attacks of bowel trouble during this period of the year.

It so often happens that a child is deprived of its mother at or near its birth, and recourse must be had to artificial feeding.

The wet-nurse affords the most typical substitute for the mother in the feeding of an infant. If she cannot be obtained, some other food resembling as closely as possible mother's milk is obviously required. The only kind of milk most readily obtained and which resembles as closely as possible human milk is that of the cow.

This differs from human milk, being richer in butter, casein and salts, and containing less sugar and water. Milk from old cows is less nutritous than from younger animals and is also more liable to be diseased.

Milk from a herd is quite apt to be uniform in quality from day to day, while that from a single cow may vary daily, according to changes in her general condition.

It is advisable to boil or sterilize all food and drink given artifically-fed infants during at least the hot season of the year. Milk given an infant should be alkaline in reaction, and while milk from grass-fed cows is alkaline, that from barn-fed cows is acid, and should be made alkaline by the addition of lime water or soda.

A uniform temperature of the milk at about 99°F is most agreeable to the child's stomach.

This proportion should gradually change, so that at about ten months the infant receives the milk pure. An even tablespoonful of milk-sugar dissolved in boiling water and filtered, is the proper quantity for about eight ounces of food. This solution of milk-sugar must not be allowed to become older than one day at most. The regulation nursing bottle, sold at the shops, should absolutely be discarded in favor of an ordinary three, four, or six-ounce vial, according to the age of the child, and an ordinary rubber nipple.

It frequently happens that babies cannot tolerate cow's milk at all, even when prepared to resemble mother's milk, as nearly as possible. Such children, as a rule, do well on condensed milk. One of the best is what is known as Anglo-

Swiss condensed milk, marked on each can, "Prepared in Switzerland."

Whatever the food of an infant may be, if at any time it shows evidences of indigestion, or becomes affected with one of the different forms of diarrheal trouble, it is always best to introduce a change of food. This alone often corrects the disturbance. The mother may begin to menstruate during the early months of lactation, or she may become pregnant soon after the birth of her child.

In the former instance she may suffer such systemic disturbances as to change her lacteal scretion sufficiently to injure her child. The little one may have severe attacks of indigestion and even go into convulsions. Here a substitute must be employed during the days of menstruation, and a day or so thereafter a return to the breast may be made.

During this period of suspension of nursing the breast-pump must be regularly used to keep up the secretion of milk. In the case of early pregnancy it will be necessary to wean the child entirely, both on account of the deranged condition of the milk, and also on account of the drain which lactation produces upon the mother.

Tuberculosis in the mother or an inability to suckle her child on account of the wasting and debilitating effect it produces on her, are also reasons for weaning. Acute diseases in the mother do not necessarily call for weaning of the child, unless the disease extends over too long a period of time.

A fissured nipple or an inflamed breast may be the cause of severe digestive disturbance in the child. At the age of 6 months small quantities of farinaceous food may be given with the milk diet. Later the softer kinds of solid foods, such as oatmeal, gruel, or rice, well cooked, and small quantities of beef broth may be added, so that at the age of from 12 to 15 months the food will be of greater consistence. Crackers and stale bread may now be boiled in water or beef broth and fed with a spoon. Small quantities of baked potato with butter and salt, and, perhaps, a little soft egg, also agree well at this time. Vegetables should not be given during the first year of life, and sparingly during the second.

At the age of 2½ to 3 years all the teeth have made their appearance, and the child may now gradually acquire access to the general table.

HEMORRHAGE AS A SIGN OF CONGENITAL SYPHILIS.

In the course of the description of a case of hemorrhagic

congenital syphilis appearing as a hæmorrhagic vesicular eruption, Dr. William S. Gottheil calls attention to the importance of otherwise unexplainable bleedings in infants as symptoms of congenital lues. They may be the only mark of the disease, especially at first, but they are almost invariably accompanied by a diminution of the coagulability of the blood, similar to that of hæmophilia, and the case usually goes on rapidly to a fatal termination. Disease of the vascular walls is one of the commonest and best known effects of the syphilitic poison, leading to hæmorrhagic discharges from the mouth, the bowels, the bladder or the nose, to blood accumulations under the skin and mucosæ, or in the serous cavities and internal organs, or finally making the syphilitic eruption itself hæmorrhagic. The author emphasizes the importance of remembering these facts in the treatment of infants who have hæmorrhagic discharges or a hæmorrhagic eruption, the cause of which is obscure. (Archives of Pediatrics, June, 1898).

THE PHILOSOPHY OF LANCING THE GUMS OF TEETHING CHILDREN, AND THE CARE OF TEETH WHEN GIVING ACID MEDICINES.

When the tooth is ready to erupt it lies in a bony cavity. The crown is fully formed, but the root is unfinished. The lower portion of the root is composed of soft dental pulp that has not yet finished its work of creating the tooth bone that is to give the tooth firm anchorage in the jaw. The alveolar process above the crown melts away by absorption, and the tooth rises up, but when the crown reaches the elastic gum, back pressure at once results, and the tooth is cruelly forced back on the nerve. If the nerve has sufficient vitality the child suffers no inconvenience, and no interference is necessary; but if three or four of these nerves, as frequently happen, receive back pressure at the same time, the irritation becomes manifest. The inhibitory centers are overpowered and the child suffers.

The remedy, of course, is simple. The gum should be cut down to the tooth, when the pressure will be at once relieved. With molars and canines it should be a cross-cut; with the incisors the incision should be made along the cutting edge of the tooth; but, above all, it must be remembered that the tooth capsule must be entirely cut through, or the pressure will continue.

Should the child be well and happy when the teeth are expected, no surgical interference is necessary; but if at this time the child begins to droop, and its bowels become unexplainably deranged, lance where the teeth are expected, and lance thoroughly. Do not wait for the gum to bulge or to become inflamed, for the child is already suffering the most terrible toothache, and cannot explain.

When the gum heals enough to make back pressure it should be reopened, even if the operation has to be repeated several times for each tooth. The intervals of rest for the little patient will make it well worth while. By means of the sharp lancet, judiciously used, and with proper hygienic care in other respects, the gums need never become inflamed, and the disorders incidental to the teething of infants can be in most cases prevented.

In the administration of acid medicines carelessness prevails, and when precautions are taken, in most cases they are ineffectual. By precautions I allude to the use of the glass tube, or the mixing of the acids with syrups, glycerine, or other bland fluids. The glass tube is ineffectual because some of the acid invariably creeps around the root of the tongue, and rests in the floor of the mouth; and the syrups and glycerine, though seemingly palliative, really only modify the action of the acids through their viscidity.

The only sure method of obviating danger to the teeth from the use of acids is by means of alkaline washes held in the mouth after the acid has been swallowed, and it should be swallowed as rapidly as possible. This absolutely prevents injury, as the acid is thereby neutralized before it has penetrated the mucous coating of the teeth. A solution of bicarbonate of soda is most efficient.—Joseph Head, M.D., D.D.S., in the Therapeutic Gazette.

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EDITORIAL.

OUR PRESENT KNOWLEDGE OF TUBERCULOSIS.

We quote from Dr. Matthews' presidential address to the American Medical Association, at its recent meeting in Columbus, Ohio:

"From carefully prepared statistics it is found that of the deaths from all causes between the ages of fifteen and sixty years, one-third of the number are victims of tuberculosis, and that it kills four and a half times as many people as do small-pox, scarlet fever, typhoid fever, and diphtheria combined. It is estimated that at any given time in Germany alone 1,300,000 persons are affected with tuberculosis, and Osler says that 1,200,000 in America have the disease at all times. One in every fifty persons has the disease. Over 13,000 die of tuberculosis in the State of New York every year. In every American city the proportion of deaths is equally great."—Jour. Amer. Med. Asso.

The Berlin Tuberculosis Congress, composed of representative medical men from Germany, England, France, Austria, Russia, the United States, and almost every other advanced nation on the globe, was opened on May 24, 1899, under the most favorable auspices. The Emperor and many German court officials were present.

In Germany there is a law taxing laborers and the employers of laborers for the erection and maintenance of sanitariums and hospitals for the care of the tuberculous poor. The special aim of the Congress was to further this method of caring for those thus affected, and at the same time to disseminate such knowledge about the etiology of the disease as will enable the laity to avoid its contamination. It is not thought that any new or startling remedy for its cure will be presented to the public from the meeting, but our present knowledge will be crystallized and much benefit will result from this boiling down process.

Of late years the public and the profession have been disturbed by premature announcements of "certain cures" of the most dreaded of all diseases, consumption. Many of these specifics were given by conscientious, painstaking, capable men who were honest in their beliefs, that they had discovered that remedy for which the world has sought for two thousand years or more; but alas! all are not so honest. And now comes another, from France this time. American advertisers and promoters are accredited with being the sharpest in the world. They must look to their laurels. This Frenchman threatens to out do them. We quote from the Journal of the American Medical Association its explanation of the subject, feeling that every physician should know the true inwardness of "Crotte's Consumptive Cure." In answer to letters coming from different parts of the United States. the Journal makes the fcllowing statement:

"Briefly, we will say that a representative of Francisque Crotte was at the Columbus meeting, and called on the Chairman of the Section on Medicine, stating that he had a paper written by Francisque Crotte, and desired the privilege of

reading it before the Section, or, if it would be perfectly satisfactory, to read it by title. The chairman of the Section replied that it was not on the programme, and that it really did not belong to his Section; that he could not accommodate the gentleman, and referred him to the chairman of the Section on State Medicine. Again the enterprising representative of Crotte received a rebuff, and, after seeing the president of the association, again applied to the chairman of the Section on General Medicine, and stated to him that he was anxious that it should either be read by title or published in the Journal, so that it could have the indorsement of the American Medical Association. He was referred to the editor of the Journal, to whom he applied, asking that his paper be published, and at the same time he intimated to the editor that he would gladly pay for having it appear in the Journal. He was asked to submit it for consideration, and then an answer would be given. The paper was submitted, and an answer given, respectfully declining to publish the same. Nevertheless, this agent, through the associated press, had telegraphed all over the country that his method had been accepted and indorsed at the meeting of the American Medical Association, and as a result another "cure for consumption" is being heralded abroad, and letters are coming to the Association as indorsers of the method.

"The scheme has been beautifully worked to reach the people, and in spite of the fact that the Association in three different ways absolutely refused to recognize or have anything to do with what they believed to be an advertising scheme and a humbug, it is made to appear that the Association indorses the cure.

"The Crotte cure claims to be an electric (cataphoric) use of formic aldehyde, or, quoting from the paper submitted: 'It is by combining the destructive power of static electricity with the power of its current to convey through the whole human body medicinal substances (formic aldehyde) that I have obtained the results irrefutable and worthy of consideration.'

"It is the opinion of those who had the privilege of reading the paper and hearing the claims made by the agent of Crotte, that the whole thing is only one of the numerous advertising, money-making schemes. Considering the fact that it has been so widely advertised from one end of the country to the other, and that physicians will be asked in regard to it, we take the matter up thus early so that our readers may have some idea of 'the latest wonderful cure for consumption.' It will be impossible to counteract the lie these people have published by the press of the country, to the effect that the American Medical Association has indorsed the 'cure;' at the same time it is well for the profession to know the facts in the case."

It is now beyond doubt that many cases of tuberculosis do get well. The old idea that phthisis is an incurable disease is no longer tenable. The fact that through the use of the microscope we are now able to make the diagnosis early is responsible for the better results from treatment. After the disease has reached the stage where breaking down and mixed infection results the prognosis is of necessity grave. Careful physical examination of the patient should be made in all cases. When the slightest suspicion of the disease is present, frequent microscopical examination should not be omitted.

THE TUBERCULIN TEST.

When Koch gave to the world his famous consumptive cure that did not cure, but proved dangerous, since it lighted up afresh latent tubercular lesions, it was thought this very objectionable element might be used to prove the presence or absence of tuberculosis. The dose of the preparation, which must be fresh and of reliable make, is very small, one-half milligramme, to be increased to four or six times that dose if no reaction takes place. Reaction is shown in from six to twelve hours by elevation of temperature, pains in head, and malaria, aching of limbs and back, and at times chills. The elevation of temperature subsides in a few hours, and with it

go the pains and distress. The temperature may become subnormal.

The test applies to tubercular foci in any part of the body. A maximum dose of tuberculin unaccompanied by reaction is considered a certain proof of the absence of tuberculous lesions in the body. It is harmless if tuberculosis be not present.

The diagnosis of tuberculosis once made, the patient should be acquainted of his condition, since it is only by strictly following the hard and fast rules to be laid down that he can hope for benefit. Specific and certain remedies for this disease have not been proved to exist. Antitoxins, serums, tuberculins, and antiseptics have each in turn been tried without success, though from that direction it would seem we should look for the desired remedy.

Treatment of tuberculosis at the present time has for its object mainly building up the body, strengthening the resisting powers of the tissues that nature may be able to rid the infected part of its irritating media. For this purpose *a life in the open* is essential, combined with a full dieting and rest, with such medication as will stimulate digestion and assimilation.

What we mean by a "life in the open" is plenty of sunlight, plenty of fresh air out of doors and away from smoke and dust; sufficient clothing should be worn to keep the body warm and dry, but clouds and cold are no excuse for going indoors. Excess of light is not objectionable, but if extreme or violent is injurious, especially in febrile cases.

Food rich in fats and given often—a stuffing process—is desirable. Cod liver oil is one of the best. Rich milk, butter, bacon and bacon gravy, and suet puddings, are all easily gotten. Six meals a day are not too many. Alcohol, the mineral acids, strychnine, creosote, ichthyol, iron, magnesium, all are of value, but only to the extent that they may aid in improving digestion and assimilation. Sedatives to allay cough and produce sleep may be necessary, though the latter at times can be had from a glass of warm milk at bed

time, while the same dose in the morning will ease the cough and prevent the exhaustion it produces.

For many years it has been the custom to send tuberculous patients from home to a different climate without much actual study of the reasons why benefit should be expected in the individual case from the region decided upon. Some were sent to the sea levels, Florida and Southern California, while others were advised to seek the high altitudes of Colorado, New Mexico, and Virginia. Of late years the subject of climate for consumptives has been given serious thought, and it is now pretty certain that no climate or region has a monopoly in curative properties, as far as consumption is concerned. Colorado, with its elevation of from 5,000 to 10,000 feet above the sea level, offers a dry, bracing atmosphere, free from winds and dust, a place well suited for persons suffering with the disease, in its incipiency, but the winters are severe and cannot be well borne by some. New Mexico and Western Texas, having an elevation of 3,000 to 6,000 feet, are both dry, free from dust, and have plenty of sunshine the year round, but the heat in summer is depressing. In the east, the Adirondack Mountains are becoming quite famous as a health resort for consumptives. A sanitarium has been established there and patients remain the year through. It is only 1,500 feet above the sea, and the temperature at times gets many degrees below zero; but the reports from this institution are good, and from a scientific standpoint that is what we must be governed by. This report gives 26 per cent. cured and 57 per cent. improved. Sanitariums have been established in the Catskill Mountains at an elevation of 2,000 feet above the sea, and at Greenhurst, Canada, at an elevation of 800 feet. The reports from these institutions are quite as favorable as that quoted from the Adirondack Sanitarium.

Undoubtedly consumptives are more successfully treated in hospitals than out of them, and it seems equally true that a dry, sunny climate, one that is free from dust and violent

winds, is best. It is not necessary that the situation should be far above the sea level.

In sending patients to localities that have obtained a reputation for benefiting consumptives it should be remembered that ease of mind, contentment, a good dieting, and a more or less prolonged stay are essential, if the patient is to improve.

Consumptives should be sent early to sanatoria if the best results are to be had. As soon as the diagnosis is made is the time, not after the disease has almost destroyed its victim.

SUICIDE OF DR. THOS. OSMOND SUMMERS.

This deplorable event occurred in St. Louis, Mo., on June 19, and was accomplished by a pistol ball through the head. Dr. Summers was in the volunter medical service during the late war, and thought his services had not been properly appreciated. This is supposed to have brought on a fit of despondency.

Dr. Summers was at one time Professor of Anatomy in the combined Medical Departments of the University of Nashville and Vanderbilt University. He was the son of a noted divine of this city, and lived here until 1885. With other physicians he went to Memphis during the yellow fever epidemic of '79, remaining there until it was suppressed. Since leaving Nashville, he had resided in Jacksonville, Fla. and Chicago, and some years ago accepted the Professorship of Anatomy in the St. Louis College of Physicians and Surgeons.

At the outbreak of the war he became Surgeon to the Second Tennessee Volunteers, and was later in charge of a yellow fever hospital in Santiago.

Near his body was found a sheet of paper on which was written the following lines:

PERDIDI VITUM—VALE MUNDUM.

"Good night, old world—good-bye to all your joys
Your sorrows, pleasures, passions, pomps and noise.
I leave you for the eternal silence of the stars;

The deafness of unbounded space, where bars
No longer hold the soul in durance vile;
Where naught can wound and nothing can defile;
Where the pure spirit shall despise the thing
The sense on earth has loved.
On wings bathed in the ether of eternity—
How sweet to feel from every passion free—
And yet it is an awful leap to take;
Into the great unknown perchance to wake -
To greater woes indeed than those we have
And hoped to bury in the silent grave.
But still the great majority is there.
Why should we, then, turn pale with fear?
Or tremble when the hour supreme has come,
As soon or late it must?
Man's final—
The grave—at least gives rest from troubles here,
And we may hope for sweet oblivion there.
Then Charon, come, I signal thee to-night,
Come—row me o'er the Styx, I've lost life's fight."

"OSMOND,"

DEATH OF DR. P. E. CLEVELAND.

This popular and able young physician died at his residence, in this city, on Saturday afternoon, June 24, last, after a period of failing health extending two or more years. A native of Alabama, he came to Nashville in 1882, afterward took his course in medicine here, graduating in 1890. He was a hard student, and was more than ordinarily successful, both in the acquirement of professional skill and in obtaining an opportunity to exercise it. No man of his age in this city was more successful. In 1895 he was offered and accepted a position as assistant demonstrator of anatomy in the Medical Department University of Nashville, and rendered efficient service during one term, but his health even then was not of the best, and his strength was not equal to the labor imposed by this work in addition to his practice. He was a Church member, and a member of various fraternal organizations, in all of which he was a consistent member. In a word, the keynote of his life was devotion to duty, whether

to his clientele, his family, his profession, or to his fellowmen, in whatever relation. The section of the city in which he lived felt his loss as keenly perhaps as any calamity that might befall them; and many friends beside lament the passing of a noble life.

A REMOVAL.

The medical profession of Nashville lose a valued member in the recent removal of Dr. B. W. Stone to Louisville, Ky., where he goes to take the Superintendency of Beechhurst Sanitarium. Dr. Stone was formerly Superintendent of the Western Kentucky Asylum, and during his residence in Nashville for some years past, has become well and favorably known in this and adjoining States. The BULLETIN'S best wishes go with him to his new field.

THE AMERICAN MEDICAL QUARTERLY.

This a new publication, the first number being issued in June. Its initial copy contains ninety-six pages of valuable reading matter, contributed by the leading members of the American medical professsion. We notice among these, Mathews, Hare, Mann, Reed, Tait, Nancrede and Fox. A number of handsome illustrations enhance the value of the text.

Kept up to the standard of the first number, it will soon become a leader among American medical publications. The BULLETIN wishing to benefit its readers, has arranged for a club rate. All new subscribers can have the BULLETIN and the American Medical Quarterly one year for the price of one journal—three dollars worth, for two dollars. Send us your name at once.

THE RED CROSS AT LA HAGUE.

The Red Cross has secured the adoption of the following provision by the Conference at La Hague, applying the Red Cross principles to naval warfare: "The wrecked, wounded or sick who are landed in a neutral port with the consent of the local authorities, shall be so guarded as to prevent their taking any part in subsequent hostile operations. Charges for their maintenance and for interment, in case of decease, shall be borne by the government to which such wrecked, wounded or sick belong.

After so many years of didactic teaching the University of Virginia has decided to add a hospital to its medical department, and an appropriation of $20,000 has been made to inaugurate this movement. The school will also have a course lasting four years from now on, and will once more take its old rank as one of the leading medical schools of this country.—Atlanta Journal-Record of Medicine.

PERSONAL.

Dr. A. E. Barrett has located at Allen, Texas. He was married to Miss Bettie Keahy on April 19. The BULLETIN tenders congratulations, and wishes the Doctor all success.

Dr. P. S. Gaharion has passed the Louisiana State Board, and is at present in Crowley, La., where he thinks of locating. We are indebted to the Doctor for a list of applicants passed by the Board.

Dr. A. Howell, of Sunny Lane, Tex., is spending some time at Sewanee.

Dr. A. Hudson, Demonstrator of Operative Surgery in the Medical Department of the University of Nashville, is again a resident at Monteagle, Tenn., for the Assembly season.

SECTION ON MEDICINE.

UNDER CHARGE OF E. G. WOOD, M.D., C.M.,

PROFESSOR OF PRACTICE OF MEDICINE AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF THE BRITISH MEDICAL ASSOCIATION, ETC., ETC.

OSLER ON CHRONIC SPLENIC ENLARGEMENT WITH RECURING GASTRO-INTESTIAL HÆMORRHAGES.

Dr. Wm. Osler in Edinburgh Medical Journal, May, says that, excluding the enlarged spleen of leucæmia, chronic malaria, cirrhosis of the liver, heart disease, and rickets, the cases of so-called primitive enlargement of the organ fall into two groups.

First, a series in which the spleen is enlarged without any symptoms other than those due to mechanicial pressure. In the past few years the author has seen four patients, all women, apparently in perfect health, who complained only of a feeling of pressure in the abdomen, in all of whom the spleen was much enlarged. In two cases in which the organ was freely movable and caused a great deal of discomfort, his colleague Halsted opened the abdomen and successfully packed the spleen in position with gauze, an operation much less serious than splenctomy and very efficacious. Both these patients have been seen more than two years subsequent to the operation, and have remained quite well. In a third case a girl was sent into the gynæcological department, supposed to have an ovarian tumor. She was robust and strong, with good color, and had been hard at work. She subsequently had a twist of the ligaments and sphacelus of the spleen, with enormous enlargement, adhesion to the abdominal wall, redness, and inflammation. The organ was freely incised by Halsted, and an enormous quantity of necrotic spleen tissue removed; the patient made a good recovery. This condition is, Dr. Osler thinks, more common than is suspected. The spleen is. as a rule, only moderately enlarged. In some cases there has been a history of past malaria, but in a majority the condition is one of, so far as can be seen, primary enlargement. It must not be forgotten, he says, that only a blood examination can determine whether or not such patients have

leucæmia, since in this disease, as is well-known, an individual may look well, and have indeed nearly a normal number of red blood-corpuscles.

Secondly, cases of enlargement of the spleen with anæmia, Griesinger's anæmia of H. C. Wood, or, as it is sometimes termed, the splenic variety of Hodgkin's disease. Dr. Osler prefers the name splenic anæmia, introduced by Griesinger. The term, he says, should be restricted to the class of cases in which a progressive anæmia develops in connection with a primitive splenomegaly. The relation of the enlarged spleen to the anæmia is still in doubt, whether the perverted state of the blood is due to splenic inadequacy (which does not seem at all probable, since removal of the spleen has cured some cases), or whether both the enlarged spleen and the anæmia are due to some chronic toxæmia. In the author's experience the cases have not been uncommon. He has seen four cases during the present year, one with Dr. Graham, of Tronto, two reported in his paper, and a fourth, which is at present under observation.

Among peculiarities which have been illustrated by his cases, he mentions the following: The remarkably chronic course, extending from three to twelve years; the chlorotic features of the blood, the hæmoglobin value often not more than fifty per cent.; the peculiar bronzing of the skin, not a jaundice, which was not present in any of his cases; and, lastly, hæmorrhages, which may be toxic, as in leucæmia, and widespread, or mechanical, resulting directly from the condition of the enlarged spleen.

It is to this latter point he wishes to call particular attention, a condition in which for many years hæmorrhages occur from the stomach and bowels. The bleedings are profuse, and in the cases he records have occurred during a period of from nine to twelve years, whiie in the intervals the patients have regained their flesh and strength and have been able to carry on their occupations.

Hæmorrhage in chronic enlargement of the spleen has, he says, long been recognized by Latour, Franck, Morgagni, and others. The best section on the subject in any modern work is that given in Watson's Practice, in which he gives the following explanation: "It seems to me highly probable that one at least of the offices of the spleen is to provide a receptacle or reservoir for this blood, when its free passage through the portal vessels is temporarily obstructed. It then becomes a sort of safety valve (if such an illustration be al-

lowable), which obviates the danger that might otherwise to more vital parts from any great or sudden disturbance of the venuos circulation. The stress of the congestion is continually felt in the submucous capillary system; and the hæmorrhage which is apt in such cases to occur from the loaded membrane receives a simple solution, upon principles almost purely mechanical."

When in Montreal, Dr. Osler's attention was called to the subject by the occurrence of several interesting cases, and in 1882 he published a short paper and reported four cases. Of these, two occurred in leucæmia, and were of special interest, inasmuch as the hæmorrhage was the symptom to call attention to the condition; in one case, indeed, the diagnosis of leucæmia was only made post mortem. Of the other two cases, one was an instance of ordinary splenic anæmia, in which, in association with a greatly enlarged spleen, the patient had in January and July, 1879, severe hæmorrhages from the stomach, and later in the same year died in a third attack. The fourth case possibly comes in the group to which he particularly wishes to call attention. The patient, a child aged eleven years, had a greatly enlarged spleen without leccæmia. There had been swelling of the abdomen for two or three years, and at her ninth year, two years before he saw her, she had a severe attack of hæmorrhage from the stomach. There was an indefinite history of a previous attack, four years before her visit to him. A month before Dr. Osler saw her she had a very severe attack, in which she vomited in a couple of days nearly three quarts of blood. In the intervals she had thrived well, though she always looked a little pale. The red blood-corpuscles were 2,250,000 white corpulces, 6,696 to the cubic millimetre.

In 1890 a case of hæmorrhage from the stomach, in association with spleuic anæmia, was admitted to the Johns Hopkins Hospital. A young man, aged twenty years, had lived in a malarial district, but had never had chills and fever. In April of 1889, after feeling badly for a month or so, he vomited blood, and afterward passed dark blood in the stools. In May, his physician for the first time noticed an enlargement of the spleen. In June he applied at the out-patient department of the hospital, when he had an extreme degree of anæmia and a greatly enlarged spleen. On admission, January 14, 1890, he had a great deal of pigmentation of the skin, and the spleen was very large, reaching nearly to the navel. The red blood-corpuscles were slightly over 2,000,000

to the cubic millimetre, and the leucocytes a little over 12,000 to the cubic millimetre. He gained rapidly in weight, had no further hæmorrhage, was discharged on March 24th, and has not since been heard from.

Dr. Osler next reports three cases characterized by a remarkably protracted course of from nine to twelve years, during which time hemorrhages, at times of great severity, took place from the stomach and bowels.

Dr. Osler next records three cases in full detail, and concludes by remarking that the special feature of hæmorrhage he regards as entirely due to mechanical causes. In none of his cases have there been associated cutaneous or retinal hæmorrhages, such as are often seen in leucæmia. He does not think anything can be added to Watson's explanation. In support of this, he refers to the anatomical fact that a very large portion of the blood from the stomach is discharged into the splenic vein. Based on the measurements of the areas of all the main branches of the splenic artery, it has been estimated that of its blood sixty per cent. passes to the spleen, and forty per cent. to the stomach (Mall, Krause). The veins of the vasa brevia passing from the fundus of the stomach are very large; and though he can find no estimate of the relation which they bear to the other veins of the organ, yet they certainly must drain a very large section of the organ.

The diagnosis of conditions associated with enlargement of the spleen is important, but somewhat complicated, owing to the number of lacunæ in our knowledge of the ætiology of the various forms, and of their relation to one another. We must recognize a primitive splenomegaly with a practically normal blood count. The cases of chronic enlargement of the spleen, extending over many years, present, as a rule, an anæmia of a chlorotic type, with low hæmoglobin and low leucocyte count. The more pronounced does the corpuscular anæmia become, the more striking are the changes in the red blood-corpuscles, and in advanced cases the blood may be like that of a pernicious anæmia. The most confusing and puzzling condition, however, is that in which, with enlargement of the spleen, the condition of leucæmia may be presented during one month, and in the following month that of a simple splenic anæmia. A patient at present under his observation had in May and July an extreme degree of leucæmia, while at the end of September, with a moderately enlarged

spleen, he had a simple anæmia with a slight increase in the polynuclear leucocytes.

And lastly comes the question of the diagnosis from Banti's disease, primitive splenomegaly, with an associated terminal cirrhosis of the liver and jaundice. Osler has never met with an instance; but two of the cases he has reported illustrate how careful one must be in the diagnosis intra vitam. All three cases reported in his paper have the chronic character and the severe hæmatemesis, features upon which Banti lays a good deal of stress. There were no changes whatever in the liver in Case I microscopically, and macroscopically in Case II the liver looked perfectly normal. It is to be noted also in the clinical report on both these cases that the area of liver dullness seemed considerably reduced, and in Case I the author was rather inclined to regard the hæmorrhage as of hepatic origin.

Moreover, a certain number of cases of splenic anæmia, he says, present ascites quite early in their course, and an instance of this kind has been recently under his observation in a physician from Illinois, who had an enlarged spleen for at least four years, with ascites in May, 1895. Death occurred in the early part of this year, with ascites. The autopsy showed only an enormously enlarged spleen without cirrhosis of the liver.

SECTION ON THERAPEUTICS.

UNDER CHARGE OF W. G. EWING, M.D.,

PROFESSOR OF MATERIA MEDICA, THERAPEUTICS AND CLINICAL MEDICINE, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE.

THE MEDICAL TREATMENT OF APPENDICITIS.

Treatment consists essentially in absolute rest in bed; in abstinence from food for twenty-four to forty-eight hours; in opening the bowels, preferably by a saline laxative and in keeping them open to the extent of one or two movements in twenty-four hours.

Occasionally citrate of magnesia is preferable. Neither opium nor morphine hypodermically is given for the pain. In nearly every instance pain subsides when once the bowels have been freely moved. In rare instances codeine is given

after the bowels have been moved. Food is returned to cautiously, a tablespoonful of milk and lime-water once in two or three hours, or what is preferable, a small quantity of beef juice or one of the animal broths, being allowed.

I am well aware that the great weight of medical authority is in favor of the use of opium and against the use of salines in the treatment of appendicitis; though the opium treatment has ceased to be the almost universal practice it was a few years ago. We owe this change of view very largely to the influence of surgeons, who have objected to the use of opium in appendicitis because it masks the symptoms of the disease and may thus deceive them. A more important objection still is that opium aggravates any toxemia that may exist, thus increasing tympany, vomiting and fever.

In speaking of the medical treatment of appendicitis, I do not, of course, mean to imply that the services of a surgeon are not needed. On the contrary many cases are surgical from the very beginning. My own rule has been to call a surgeon in all doubtful cases. A case in my judgment is doubtful if within twenty-four hours after the patient is seen, or after the bowels have been sufficiently moved, there has not been a decided improvement.—Herman B. Allyn, M.D., in Therap. Gazette.

THE DIAGNOSTIC VALUE OF THE X RAY.

Dr. H. H. Hagan exposed a patient to X Ray and could not find a gallstone, but was well convinced that there was a gallstone there, and resorted to other means to find out what an X ray would do, took a number of gallstones, six or seven, and tried them, just as they were, and they would cast a little shadow, hardly as much as the flesh around the bone. He imbedded them in tissue and they did not show at all. He had one stone given him by Dr. Burchell; who had taken it from a gall bladder while an interne in Bellevue Hospital. It was about as large as a pigeon's egg. That, being imbedded in hepatic tissue, made a decided shadow. It did not occur to him to break it into small pieces and expose it in that way, but probably it had contained a great deal more lime, instead of cholesterin. He does not think cholesterin will obstruct the light at all, but lime may, and practically the X ray has no value in gallstones.—N. Y. Med. Journal.

DRUGS NOT ABSORBED BY THE STOMACH.

Recent investigations into the functions and action of the stomach seem to indicate that much of the care taken to prevent the absorption of drugs by that organ by means of a coating of some substance, such as salol or keratin, soluble only in the alkaline fluids met with in the intestines is wasted since experience has demonstrated that sugar and peptones in 5 per cent. solution, sodium iodide in 1 per cent. solution, and even water, pass unchanged through the pylorus.

On passing into the intestines, however, it has been found that absorption at once begins to take place rapidly, so that in fact the rapidity of the action of a drug may be considered as dependent simply upon the celerity with which it reaches the intestine. This fact having been established, the question of importance is the best method of hastening the passage of the medicine through the stomach into the intestine. This question has recently been studied by Moritz, who concludes (Munch. Med. Woch.) that water and neutral solutions leave the stomach most quickly. Half a liter of water leaves the stomach in one-half or three-quarters of an hour, and a glass of water in about half that time. Acid solutions, soups, milk, beer, and, notably, oil, pass onward much more slowly, and perhaps for the reason that they stimulate the gastric secretion. Where this is done, digestion is prolonged. In quite the same way water taken with food requires more time to reach the pylorus than it would when taken by itself; therefore, drugs leave the stomach and consequently are most quickly absorbed when given with plain water, less rapidly in soups or milk, more slowly when after a meal, and most slowly when given without fluid after a meal. In this way we can explain the quicker action of alcohol of an empty stomach than when taken with a meal. It is not from the rapidity of absorption of the alcohol in the stomach, but on account of the rapidity with which it reaches the duodenum, and from there the circulation.

A drug will irritate the stomach less the more quickly it leaves it and the more it is diluted. This is attained by giv-idg the drug with water on an empty stomach. Mucilaginous vehicles for drugs are good, because the HCl secretion is less when they are so given. Naturally, they do not leave the stomach so quickly, but this is more than made up by the protective working of the mixture.—Gaillards Medical Journal.

THE CONTROL OF HEMORRHAGE BY GELATIN.

Lancereaux and Paulesco employ the following solution:

℞ Gelatin, 2½ drachms;
Sodium chloride, 2½ drachms;
Water, 1 quart.

This is sterilized, and from one to two ounces, which may be increased to three or four ounces, is injected underneath the skin of the thigh.

For combating the hemorrhage of tuberculosis it is stated that Huchard employs the following formula:

℞ Gelatin, 2 drachms;
Sodium chloride, 2½ drachms;
Water, 1 quart.
Dissolve with the aid of heat, filter and sterilize.

Commence the injections in the quantity of one to two ounces under the skin of the abdomen. Where it is desired to produce coagulation of blood in an aneuraysmal sac we may employ the following solution, which is very much stronger.

℞ Gelatin, 30 grains;
Sodium chloride, 2½ drachms;
Water, 3 ounces.

Of this they give one to two ounces subcutanteously.—Therap. Gazette.

SECTION ON NEUROLOGY.

UNDER CHARGE OF T. L. MADDIN, M.D.,

PROFESSOR OF NERVOUS DISEASES AND GENERAL PATHOLOGY, MEDICAL DEPARTMENT, UNIVERSITY OF NASHVILLE; MEMBER OF AMERICAN MEDICAL ASSOCIATION, ETC., ETC.

CHILD-TRAINING BY HYPNOTISM.

A French physician, Dr. Berillon, advises the use of hypnotism in the management of children. He has experimented in this direction on several thousand little ones during the past twelve years and has given his conclusions in twenty-three different medical pamphlets. Says Dr. M. L. Holbrook in a review of the French physicians work in Omega (New York, June): "His conclusion is that eight out

of ten children are subject to this agent in a profound degree at the first or second effort, and that normal children are more easily influenced than abnormal ones. With care on the part of the hypnotizer, who should always be a man of good habits and carefulness, there is, he says, no risk of harm, physically, mentally or morally.

In the treatment of degenerate children who have fallen below the standard of their race physically, mentally or morally, Berillon has found hypnotism very useful. Some of the signs of degeneracy which he enumerates are the existence of habits which tend to become automatic, such as nail-biting and other similar habits. By hypnotic suggestions he would bring the habits, done unconsciously, into the domain of consciousness, and arouse or build up the power of constraint. To give an illustration: When the nail-biting child is in the hypnotic state, he suggests to it that it will hereafter always be conscious of the act. This is of first importance. There is no hope of a cure if it continues to be performed unconsciously. He tells it will feel that the hand is heavy wherever it tries to lift it to the mouth, and that this feeling will act restrainingly. These suggestions may require many repetitions at each sitting before they take root in the mind, and that this must not be forgotten.

"Kleptomania is a sign of degeneracy. It is a disposition to steal, which cannot be resisted. Berillon has cured many cases. In the hypnotic state the suggestions is repeatedly made that it (the patient) will have no desire to steal; that he will be conscious of it when the feeling comes up, and he will be able to dismiss it from the mind, have a horror of it, etc.

"Dr. Berillon gives in his pamphlet some very bad cases of idleness, inattention, cowardice cured by suggestion. A pusillanimous child is generally weak-minded. It may have all the brain-cells that brave children have, but they have not been called into activity. Perhaps they are not nourished by a stream of blood going to them, and cannot act. In the hypnotic sleep they are called into activity. The blood flows to them and in some mysterious way the childs nature changes.

"There is no doubt much prejudice among a majority of persons against hypnotism, and this is natural, because most people think there is something almost supernatural about it. One physician remarked, he had rather have his children naughty than made good in this way. Ordinary naughtiness which may exist in any child certainly does not require hyp-

notism to cure it. It is only when it is excessive. No sensible parent or educator would advise its use for any but such cases in which ordinary methods of education have failed, in which cases it may save a child from a bad course leading to misery and perhaps crime."—The Literary Digest, July 1, 1899.

NERVE-CELLS IN TYPHOID.

Nichol's paper gives the results of the study of certain changes observed by Nissl's method in three cases of tyhpoid fever, and in a series of experimental inoculations of rabbits with the typhoid bacillus. In the human cases, which were of the severer type, the spinal cord and root ganglia were examined, and the same with the addition of the peripheral nerves in the experimental cases. His conclusions were:

1. The application of the Nissl's method to the motor cells of the spinal cord, and the nerve cells of the dorsal root-ganglia in typhoid fever, shows that the cells regularly suffer pathologic changes in the course of infection.

2. The alterations in the motor cells are more constant and of a severer grade than are those in the cells of the sensory ganglia. The more characteristic changes consist of disintegration, solution and destruction of the chromatic substance of the cells, starting from the axone hillock and proceeding toward the nucleus, coincidently the nuclei of the affected cells seek the periphery. Alterations are also suffered by the nucleus and the nucleolus.

3. While this central form of chromatolysis is the prevailing type of pathologic change, disintegration, etc., of the Nissl bodies situated in the periphery of the cell and in the dendrites is also observed (peripheral chromatolisis).

4. In experimental infection with typhoid bacilli in rabbits, a similar change of lesions in the corresponding nerve cells in the spinal cord and ganglia is encountered.

5. The main or central type of lesions discovered is identical with that found in man and animals after section, destruction, or even slight injury of the peripheral nerves.

6. The examinatiou of the peripheral nerves arising from the lumbar segment of the spinal cord (the site in man and rabbit of the most profound changes) in rabbits inoculated with typhoid bacilli showed well marked evidences of parenchymatous degeneration.

7. It is probable that lesions of the peripheral nerves in

typhoid fever in human beings are common and that the post-typhoid hyperesthesias and paralyses are due this cause.

8. Restitution of the chromatic granules may take place in the affected nerve cells, the new foundation beginning about the nucleus and extending through the protoplasm.

TRAUMATIC CEREBRAL EDEMA.

Courtney's conclusions, after a critical investigation of the subject, says:

1. That traumatic, cerebral edema can have no place as a pathologic or clinical entity.

2. That it is primarily the inevitable sequence in time of that complex of pathologic conditions which we designate contusion.

3. That inasmuch as contusion of the brain and its meninges is most commonly met with as a concomitant lesion of the more microscopic lesion designated hemorrhage and laceration, the primary seat and its accompanying edema will be largely fortuitous.

4. That in the rare instances in which the application of a traumatizing force is expended in the production of a local contusion of the brain cortex or its meninges, the brain is of itself abundantly able to rid itself of the edema through its venous channels, (and lymphatics?)

5. That in the remaining cases in which the contusion is primarily extensive in the cerebrum, or when its effects are in the cerebellum or bulb, the factors which enter into the mechanism of the edema are such as to preclude the possibility of operative relief.

6. The contusion can, per se, easily cause death.

7. That death in such cases results from anemia of the bulb.

INSANITY AND THE DUCTLESS GLANDS.

Hamilton's paper discusses the mental symptoms accompanying certain diseases of the ductless glands, such as Graves' disease, myxedema, acromegaly. The use of thyroid extract in myxedema is well-known, and it seems to have been of advantage in well-known cases of mental disorder. In exophthalmic cases he has used adrenal extract with benefit, and he believed that it can be sometimes used as a substitute for narcotics, such as morphine and hyoscine.

CARBOLIC ACID IN TETANUS.

This method which originated with Baccelli, has in recent years attracted the increasing attention of Italian clinicians, but does not appear to have been adequately tried in other countries. From time to time various observers have reported cases of tetanus treated by this means with such brilliant results that if only one-half of the claims were true, this drug would still offer a prognosis far more favorable than any method at present employed. And the cases reported come from so many observers, that it is impossible to question the accuracy of their statements.

Baccelli's method is as follows: If the tetanus is of traumatic origin, the wound is thoroughly cleansed with a strong antiseptic solution, (either corrosive sublimate or carbolic acid). The patient is placed in as quiet an apartment as can be obtained, the ordinary rules of diet, etc., are carried out, and sub-cutaneous injections of 2 per cent. solution of carbolic acid given at two or three hour intervals. If the case is only of moderate severity, commencing doses of about 0.20 gramme, (3 grains) in twenty-four hours, may be used. This dose should, however, be rapidly increased to at least double or triple this quantity. It is remarkable what heroic doses of carbolic acid tetanus patients will bear. Along with the carbolic acid, other remedies, as morphine or chloral may be given, as thought necessary.

The success obtained by this method of treatment is almost incredible. It would seem to alter the prognosis of tetanus almost as entirely as antitoxin has that of diphtheria. Ascoli has made a careful analysis of the results obtained by the use of carbolic acid, of Behring's anti-toxin serum and of Fizzoni's serum, other antitoxines being excluded in order to have a more uniform basis for comparison. The summarized tables tend indubitably to show that carbolic acid for surpasses the serum treatment in life-saving power. Besides, Ascoli claims for carbolic acid that it causes no secondary symptoms which can hardly be said of the autitoxin, and that it is cheap and readily obtained.

In conclusion, from the study of Italian literature, it would seem that:

1. Carbolic acid gives better results in tetanus than does the anti-toxin treatment.

2. It acts by antagonizing the toxin and by quieting the nervous system.

3. It should always be given hypodermically, and in large enough doses, for cases of tetanus are remarkably tolerant towards it.

4. Other methods of treatment should be continued, of which the discoverer lays especial stress on the local disinfection of the wound.

SECTION ON ABDOMINAL SURGERY AND DISEASES OF WOMEN.

UNDER CHARGE OF M. C. McGANNON, M.D., C.M.,

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ORGANOTHERAPY IN GYNECOLOGY.

We are safe in formulating the following statements:

1. The ovaries, in common with other glandular organs in the body, exert an occult, but very positive, influence upon the general organism.

2. When this influence is removed, either by the natural atrophy of the glands at the climacteric, by destruction of the ovarian stroma from pathologic processes, or by extirpation of the organs, there results a series of distressing phenomena, including hot and cold spells, nervous and mental manifestations, and neuralgic attacks.

3. The administration of ovarian substance or of the extract of ovarian tissue, is promptly and very generally followed by a marked amelioration of these symptoms.

4. The average dose required varies from two to five grains of the extract administered thrice daily.

5. Excessive doses of the remedy will be followed by cardiac and nervous manifestations necessitating a diminution in the dose administered or a complete, though temporary, change of treatment.

6. In some cases there appears to be developed a tolerance to the remedy whereby its effects are diminished in intensity. For this reason it is better to begin with small doses and gradually increase the amount as may be indicated in the given case.—Dr. W. A. Dorland in The Therap. Gazette.

A NEW OPERATION FOR HERNIA.

Dr. Emory Lanphear (Medical and Surgical Monitor, May 15) describes, in a paper read before the Academy of Medical and Surgical Sciences, a new operation devised by him to avoid the atrophy of the testicle which is noted to have occasionally followed Bassini's operation, and the tendency to recurrence which at times follows on the Czerny and Macewen methods. He says:

"A large flap is turned back, exposing the hernial sac and the inguinal canal in their entirety. The sac is then carefully dissected out, opened, and the contents reduced. At this stage the opening into the abdomen is closed with gauze and the spermatic cord and testicle lifted out of their natural position and enveloped in iodoform gauze. From the hernial sac (parietal peritonæum) there is now made a pouch or artificial tunica vaginalis testis, into which the testicle and cord are passed and inclosed with catgut sutures in such a way that not too much pressure is possible upon the cord; the whole is then pushed into the abdominal cavity and anchored by a few catgut sutures. The cut in the peritonæum is next closed; next the opening into the scrotum sutured; then each muscular layer of the abdominal wall carefully sutured, completely obliterating the canal—just as is done in operating for inguinal hernia in the female.

"That the ultimate fate of the buried testicle may be atrophy, the author cannot dispute, as no opportunity has yet presented for post-mortem examination; that it is possible he cannot deny. From a surgical standpoint, the chief objection to this operation is that a suppurative orchitis, or epididymitis might necessitate abdominal section; but suppurative inflammation of these structures is so comparatively rare that this danger, he thinks, can scarcely outweigh the advantages to be gained. So far, only the most gratiying results have been noted in the three cases thus operated on."—N. Y. Med. Jour.

FROM ASYLUM TO HOSPITAL.

Ernest Hall, M.D., reports the following case:

"Mrs. X., aged 32, excellent family history, previous health good, one child twelve years ago. Shortly after birth of child patient developed pelvic inflammation, which became chronic. After suffering two years she obtained relief. A

few months after the patient began to give evidence of mental derangement. She was accordingly placed in the asylum nine years.

"On December 3, 1898, examination under chloroform, proved retroversion with adhesions, fixed appendages and enlarged ovaries. Operation advised. January 27, 1899, operation was made for following conditions: Adhesions of clitoris, small urethal caruncle. Right ovary complete cyst size of a small peach; the left was cirrhotic with smaller cyst. Delicate adhesions bound these structures down to pelvic wall Convalescene was normal; patient gave no trouble; the mental power slowly returned. On March 14 her sister wrote: "My sister much improved; seems perfectly rational in her conversation."—Canandian Practitioner.

THE SURGERY OF MAMMARY CANCER.

The results from breast amputation are slowly but steadily improving. Butlin has recently reported a series of thirteen cases, in the British Medical Journal, December 3, 1898, treated by Halstead's plan three or more years ago, with the following results:

Died of the operation	1
Dead or living with local recurrence	2
Dead of cancer without local recurrence	1
Alive and well	9

Mr. Watson Cheyne reported in 1896, 43 cases belonging to Butlin, Halstead and himself, 23 of whom were either alive and well at the end of three years or dead from some other cause than cancer.

These statistics are remarkably favorable, but we are hardly justified in concluding that this large proportion of cures is chiefly due to methods of performing the operation.

The greater credit should be given to an earlier recognition of the disease, and a removal before it has invaded regions where no plan, however extensive or carefully followed, can effect a cure except in rare instances.

We have often urged the necessity of a careful study of the precancerous condition, and the necessity of surgical intervention at the earliest possible moment. Even if we sometimes remove a neoplasm which proves to be non-malignant, a possible calamity has thus been averted. Delayed surgical treatment in diseases of the mammary gland is re-

sponsible for the stigma which the laity has naturally attached to this important operation.—Dr. Daniel Lewis in Med. Review of Reviews.

APPENDICITIS.

Diagnosis—" three cardinal symptoms—viz :

1. Sudden acute abdominal pain in one previously well.
2. Unilateral rigidity of lower abdominal wall.
3. Tenderness over site of appendix.

After the onset, tenderness on pressure soon becomes localized and its intensity corresponds approximately to the degree of inflammation. Location of tenderness is usually at McBurney's point, but varies with the position and condition of the appendix.

Rectal or vaginal examination, or both, should always be made, particularly in those cases in which abdominal palpation gives negative results. In these, rectal examination demonstrates points of marked tenderness, sometimes fulness, and is of greatest value when the appendix points south.

Tenderness increased in—

1. Pus formation.
2. Gangrenous change.
3. Perforation.

Tenderness decreased—

1. After discharge of faecal concretion.
2. After free evacuation of the bowels.
3. In late pus cases with enough septic absorption to paralyze nerve filaments.

Abrupt cessation of pain indicates gangrene.

Pain and tenderness on left side : Appendix points south (rarely east) and occupies pelvis. Vesical symptoms are common.

Pain on left side with tenderness over pubis : Appendix points south, tip of appendix affected, the point of greatest inflammation.

Pain on left side with bilateral rigidity: Appendix points south with pus collection surrounding it.

Pain over hepatic or right renal region with tenderness over course of ascending colon : Appendix lies post-caecal or post-caecal and post-colic, and points north, upward.

Fulness appears late—after formation of pus or inflammatory mass.

Excessive tenderness most reliable sign of pus.

Distension:
(a) Localized—Is due to localized peritonitis.
(b) General—to
1. Constipation.
2. Opium.
3. Paralysis of intestines due to sepsis.
4. Mechanical intestinal obstruction.
5. General peritonitis.

Detection of tumor is often impossible on account of tenderness and muscular rigidity. When adhesions and infiltrates are present, tumor can easily be detected. Rectal examination is often successful, detecting fulness when abdominal palpation is of no avail.

Chill, denoting pus formation, is rare.—Dr. John B. Deaver in Virg. Med. Semi-Monthly.

MISCELLANEOUS.

EXALGINE.

Exalgine is a potent drug to ameliorate the severity of choreic movements, and it also seems to abbreviate the duration of an attack. The serious objection to its use is that it causes profound haemolysis. The effects of its administration upon the patient's appearance and vitality are manifest very promptly, and to one unaccustomed to its use they seem very alarming. These symptoms are paleness of the skin, bluish appearance of the extremities, lowered surface and general temperature, and, if pushed to a greater degree, symptoms of collapse. The drug may be administered in doses of from one-half grain to three grains, repeated every five hours to children under ten years of age. It should always be administered in conjunction with large doses of some absorbable preparation of iron. Exalgine is of greater service in the early stages of an attack than later in the disease. Were it not for the profound anemic and collapse symptoms which it causes, the drug could be recommended more warmly, for, in truth; it is nothing less than astonishing how quickly it mitigates the severe motor manifestations of the disease.—Joseph Collins, M.D., in the Post Graduate.

ACETANILID POISONING IN AN INFANT.

Dr. Thompson S. Westcott in Annals of Gy. and Ped., reported a case of acetanilid poisoning in a female infant 4 months of age. She was a fat, well-developed baby, nursed entirely upon the breast, and during the hot weather she became chafed in the folds of the groins and the creases of the thighs, producing a mild eczema. For this a dusting powder of pure acetanilid was ordered. Three hours after the drug was applied the whole surface of the body showed a peculiar grayish pallor and the lips were bluish, though the surface temperature was not thought by mother to be lower than usual. The cyanosis increased for an hour and a half, the face became pinched and drawn in appearance, and the baby was in a profound slumber from which she could not be easily aroused. Four or five hours after signs of poison were first noticed, the cardiac action and respiration were not appreciably disturbed. The remains of the powder were not removed till this time. Recovery gradually ensued without any more active treatment than small doses of whisky once or twice repeated. In this case the actual amount of surface capable of directly absorbing the drug was very small and in no way comparable to the area of surface exposed in other cases so far recorded.

THE CHEMISTRY OF IODINE IN THE THYROID GLAND.

According to the author, the iodine-holding proteid compounds are almost wholly seperable from the gland by water. The total iodin of the gland is so distributed that about 96 per cent. can be separated by alcohol, acids, etc., as iodo-albumin compounds in firmly bound form. Thyroidin does not occur free in the gland. The iodo-albumin compounds do not liberate thyroidin during artificial gastric juice or pancreatic digestion, but they pass over into iodin-holding digestive products which contain the iodin in the same union as in the mother substance. Thyroidin liberation occurs only after destruction of the proteid molecule.—Dr. R. Tambach in Zeitsch. f. Biol, XXXVI., No. 4, p. 549.

SOCIETY MEETINGS.

AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

The American Electro-Therapeutic Association will hold its ninth annual meeting at Washington, D. C., September 19, 20, 21, 1899. The President, Dr. F. B. Bishop, appointed the following Committee of Arrangements:

Drs. D. Percy Hickling, chairman; Jos. Taber Johnson, G. Lloyd Magruder, Z. T. Sowers, Robert Reyburn, G. Betton Massey, Chas. R. Luce, Elmer Sothoron, Llewellyn Eliot, Clifton Mayfield.

Willards Hotel has been chosen for the headquarters, and special rates have been made for all interested in this meeting.

Many able papers have been promised and a very successful scientific meeting is assured. There will be a large and varied exhibition of electro-therapeutic apparatus in Willards Hall during the meeting of the Association. Willards Hall is well adapted for this purpose, as it not only adjoins the headquarters, but communicates with it by a corridor; there is also a large entrance directly from the street.

The committee also promises a very pleasant social programme, including a reception by the President of the United States, an excursion to Mt. Vernon, Arlington, and Alexandria—a Buffet lunch to be served at Alexandria—an evening visit to the Congressional Library to be viewed under electrical illumination. Provisions have also been made to visit the War, State and Navy Department, the United States Treasury, and other public buildings.

It is earnestly hoped that every fellow, active, honorary, and associate, will be present at this meeting, as it is desired to make it rank among the notable meetings of this Association.

AMERICAN MEDICAL ASSOCIATION.

In addition to the proceedings of this Association which we printed last month, the recommendation of the board of trustees was concurred in to adopt Dr. Tuckerman's resolution to appoint a committee of three on national legislation, and that

not exceeding $250 be appropriated for the use of said committee, to be expended on vouchers approved by the local members of the board of trustees, who, under a former action of this Association, must be the District of Columbia member of this national legislative committee, with one member from Baltimore and one from Philadelphia.

An appropriation of $500 was made for the expenses of the Committee on a Department of Public Health, the committee reporting that the "Spooner Bill," it was believed, would become a law during the next session of Congress.

A resolution of thanks to Dr. A. L. Gihon for his services as chairman of the Rush Monument Fund was adopted, also one appointing the retiring Secretary, Dr. W. B. Atkinson, of Philadelphia, to take charge of registrations at the annual meeting, with $100 and expenses as compensation.

The Executive Committee, after considering the recommendations of the Presidential address, reported favorably on all except that of a permanent location at Washington for the Association.

Dr. Dudley S. Reynolds, of Louisville, offered the following amendment to the Constitution, which was laid over one year: "By adding to the qualifications of membership in those societies eligible to send delegates to this Association. After the words 'Marine-Hospital Service of the United States,' at the conclusion of the second paragraph; provided, however, that no State, county or other auxiliary body sending representatives shall receive into its membership any one who may after 1900 have received the degree of doctor of medicine on less than four years of graded instruction or an equivalent requirement.

Dr. George M. Gould reported on behalf of the committee on the prize competition of the American Medical Association for meritorious scientific work, that it had received no essay for which it recommend the award of the prize.

Atlantic City, N. J., was selected as the place of next meeting, the date of which is the first Tuesday in June, 1900.